7 Solve problems

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Troubleshooting checklist

The following checklist contains basic questions that you can ask the customer in order to help define the problem(s) quickly. For more information about product and media specifications, see Paper and print media on page 47.

Table 7-1 Initial troubleshooting checklist

Environment	• Is the product installed in a suitable environment? See Operating environment on page 504. • Is the product installed on a solid, level surface? • Is the supply voltage (from the wall receptacle) within ± 10% of the product's rated voltage (see Electrical specifications on page 502)? • Is the power cord fully seated into both the product and the electrical receptacle in the wall? • Is the product exposed to ammonia gas, such as that produced by diazo copiers or office-cleaning materials? • Is the product exposed to direct sunlight?
Media	• Is suitable media being used in the product? See Supported paper and print media sizes on page 48 and Supported paper and print media types on page 50. • Does the customer use only supported print media? • Is the media in good condition (no curl, folds, or other flaws)? • Is the media stored correctly and within environmental limits? • Is the correct side of the page printed on first? • Is long-grain paper being used?
Input trays	• Is the correct amount of media loaded in the tray (not stacked above the arrows embossed in the tray)? • Is the media placed in the tray correctly? • Are the paper guides aligned with the stack? • Is the tray cassette installed correctly in the product?
Print cartridge	• Is the print cartridge installed correctly?
Fuser	• Is the fuser installed correctly?
Covers	• Is the top cover closed?
Condensation	• Does condensation occur following a temperature change (particularly in winter following cold storage)? If so, wipe off the affected parts or leave the product on for 10 to 20 minutes and then attempt to resume printing. • Was a print cartridge opened soon after it was moved from a cold room to a warm one? If so, allow the print cartridge and the product to acclimate to room temperature for one to two hours.
Miscellaneous	• Are any non-HP components installed? Check for any non-HP components (print cartridges, memory modules, and EIO cards) installed in the product and remove them. Hewlett-Packard recommends the use of HP components in its products. • Remove the product from the network, and make sure that the failure is associated with the product before beginning troubleshooting.

Menu map

The menu map can be an important troubleshooting tool. It shows each control-panel menu and submenu in order to aid navigation through the menu system. Print the menu map from the control panel by completing the following steps.

1. Press Menu .
2. Press the down arrow ▼ to highlight **INFORMATION**, and then press OK.
3. Press the down arrow ▼ to highlight **PRINT MENU MAP**, and then press OK to print.

Troubleshooting process

When the product malfunctions or encounters an unexpected situation, information on the control panel alerts you to the situation. This section contains an initial troubleshooting checklist that helps to eliminate many possible causes of the problem. The subsequent troubleshooting flowchart helps you to diagnose the cause of the problem. The remainder of the chapter provides steps for correcting the problems that have been identified.

- Use the initial troubleshooting checklist to evaluate the source of the problem and to reduce the number of steps that are required to fix the problem.
- Use the troubleshooting flowchart to pinpoint the cause of malfunctions. The flowchart lists the section within this chapter that provides steps for correcting the malfunction.

Before beginning any troubleshooting procedure, check the following issues.

- Are supply items (for example, the print cartridge, fuser, and rollers) within their rated life?
- Does the configuration page reveal any configuration problems? See Print the information and show-me-how pages on page 66.

NOTE: The customer is responsible for checking and maintaining supplies, and for using supplies that are in good condition. The customer is responsible for media and print-cartridge supplies. The customer is also responsible for replacing the fuser, transfer roller, and all paper pickup, feed, and separation rollers that are at or near the end of their 225,000-page rated life.

Power-on checks

The basic product functions should start up as soon as the product is plugged into an electrical receptacle and the power switch is pushed to the *on* position.

Overview

Turn on the product power. If the control-panel display remains blank, random patterns appear, or asterisks remain on the display, perform power-on checks to locate the cause of the problem.

During normal product operation, the left rear cooling fan begins to spin briefly after the product power is turned on. Place your hand over the holes in the left-side cover. If the fan is operating, you will feel a slight vibration and feel air passing into the product. You can also lean close to the product and hear the fan operating. When this fan is operational, the dc side of the power supply is functioning correctly.

After the fan is operating, the main motor turns on (unless the top cover is open, a jam condition is sensed, or the paper path sensor is blocked). You should be able to visually and audibly determine if the main motor is turned on.

If the fan and main motor are operating correctly, the next troubleshooting step is to separate print engine, formatter, and control-panel problems. Perform an engine test (see Engine test on page 246). If the formatter is damaged, it might interfere with the engine test. If the engine test page does not print, try removing the formatter and then performing the engine test again. If the engine test is then successful, the problem is almost certainly with the formatter, the control panel, or the cable that connects them.

If the control panel is blank when you turn on the product, check the following items.

1. Make sure that the product is plugged into an active electrical outlet receptacle that delivers the correct voltage.
2. Make sure that the on/off switch is in the *on* position.

3. Make sure that the fan runs briefly, which indicates that the power supply is operational.
4. Make sure that the control-panel display wire-harness is connected to connector J70 of the DC controller PCA.
5. Make sure that the formatter is seated and operating correctly.
6. Remove any HP Jetdirect or other EIO cards, and then try to turn the product on again.

NOTE: If the control-panel display is blank, but the main cooling fan runs briefly after the product power is turned on, try printing an engine test page to determine whether the problem is with the control-panel display, formatter, or other components. See Engine test on page 246.

If the main cooling fan is not operating, replace the power-supply assembly. See High voltage power supply on page 208.

NOTE: It is important to have the control panel functional as soon as possible in the troubleshooting process so that the control-panel display can be used to help locate errors.

If problems with the power-on check persist, refer to table Table 7-2 Power-on defect or blank display on page 243.

Table 7-2 Power-on defect or blank display

Problem	Action
The power cord is not plugged into the wall receptacle and connected to the product.	Make sure that the power cord is firmly plugged into the wall receptacle and connected to the product.
The correct voltage (power) is not available.	Measure the voltage at the outlet. If necessary, plug the power cord into another circuit outlet.
The power switch is off.	Set the switch to the *on* position. You should hear the switch toggle. If the front right-side cover has been removed recently, make sure that the rod connecting the power-supply switch moves as you toggle the switch. See the reinstall note in Reinstall the right cover on page 164. If the product still does not turn on, the power switch might be defective. 1. Remove the power supply. 2. Measure the resistance between the two terminals of the power switch (SW1) by applying the tester probes to the terminals. The resistance must be low (under 1 K/ohm) when the power is turned on, and high (over 6 K/ohm) when the switch is turned off. 3. Replace the power-supply assembly, if necessary.
The overcurrent/overvoltage detection circuit is activated.	Wait for more than two minutes before turning the product back on.
A fuse is blown.	1. Check the fuses (FU1 and FU2) on the power supply. 2. Replace the power-supply assembly if necessary.
The main cooling fan (located on the left side near the rear of the product) does not turn on when the product is started.	An operational fan indicates the following conditions: • The AC power is present in the product. • The DC power supply is functional (24 V, 5 V, and 3.3 V are being generated). • The DC controller microprocessor is functional.

Table 7-2 Power-on defect or blank display (continued)

Problem	Action
	If the fan is not working: 1. Turn the product off and remove the formatter. Disconnect the optional accessories. 2. Turn the product on and check the fan again. **If the fan is still not working**: 1. Verify that the fan is connected to the power supply (connector J64). 2. Replace the fan. See Fan FN101 on page 202. 3. Replace the power-supply assembly. See High voltage power supply on page 208. 4. Replace the DC controller. See DC controller PCA on page 188. **Note:** The fan only operates during the initial startup and while printing, and when the temperature inside the product is too high. If the temperature is too high, the fan turns on to cool the inside of the product.
The fan works, but the control-panel display is blank.	1. Print an engine test. Engine test on page 246. 2. If the engine test is successful, perform the following steps, in order. ◦ Reseat the control panel and formatter connector. See Control-panel assembly on page 172 and Formatter cover, formatter cage, and formatter PCA on page 152. ◦ Replace the control-panel cable. See Control-panel assembly on page 172. ◦ Replace the control-panel assembly. See Control-panel assembly on page 172. ◦ Replace the formatter. See Formatter cover, formatter cage, and formatter PCA on page 152. 3. If the engine test is not successful, remove the formatter and attempt to perform the engine test again. If the engine test is successful with the formatter removed, replace the formatter. See Formatter cover, formatter cage, and formatter PCA on page 152. If the test is not successful with the formatter removed, replace the DC controller PCA. See DC controller PCA on page 188.

Troubleshooting tools

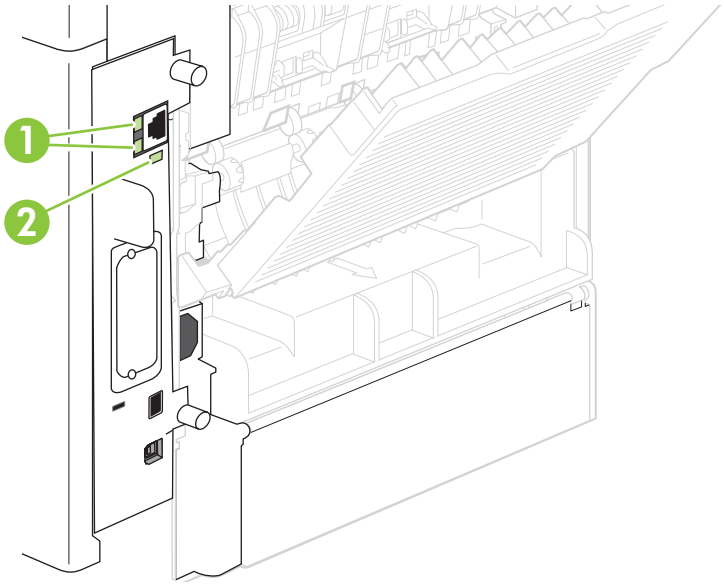
Individual component diagnostics

LED diagnostics

LED, engine, and individual diagnostics can help identify and troubleshoot product problems.

Understand lights on the formatter

Three LEDs on the formatter indicate that the product is functioning correctly.



1	HP Jetdirect LEDs
2	Heartbeat LED

HP Jetdirect LEDs

The embedded HP Jetdirect print server has two LEDs. The yellow LED indicates network activity, and the green LED indicates the link status. A blinking yellow LED indicates network traffic. If the green LED is off, a link has failed.

For link failures, check all of the network cable connections.

For non-link errors, print a configuration page. The second page is the HP Jetdirect configuration page. Examine this page for any inconsistencies among the network settings.

Heartbeat LED

The heartbeat LED indicates that the formatter is functioning correctly. While the product is initializing after you turn it on, the LED blinks rapidly, and then turns off. When the product has finished the initialization sequence, the heartbeat LED pulses on and off.

The heartbeat LED will perform the following sequences:

1. The LED blinks every four seconds with the power on.
2. If the light is not blinking, check the following:
    - Reseat the formatter cage.
    - Replace the memory.
    - Replace the formatter.
3. If the control panel display does not illuminate, perform an engine test to check the engine (see Engine test on page 246). You must have paper loaded in Tray 2 for the engine test.

Formatter test

To check that the formatter is working, print a configuration page.

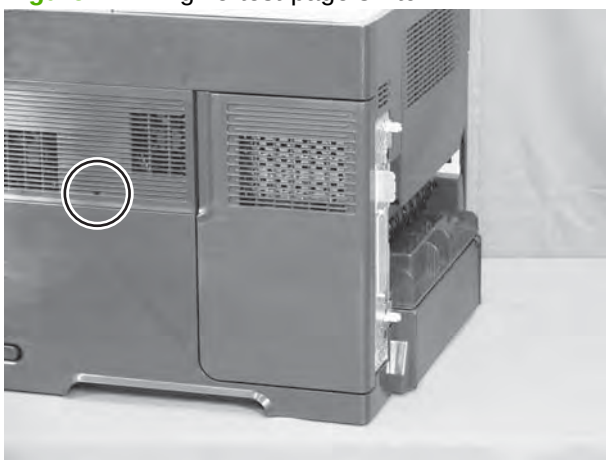
1. Press Menu .
2. Press the down arrow ▼ to highlight **INFORMATION**, and then press OK.
3. Press the down arrow ▼ to highlight **PRINT CONFIGURATION**, and then press OK.

Engine diagnostics

Engine test

To verify that the product engine (all product components *except* the formatter, formatter DIMMs, EIO products, and the stacker or stapler/stacker) is functioning, print an engine-test page. Use a small, non-metallic, pointed object to depress the test-page switch, which is accessible through a slot in the right-side cover.

Figure 7-1 Engine-test-page switch



The test page should have a series of horizontal lines. The test page prints from the last tray that you printed from. However, if the product has been turned off and then on again since the most recent print job, the page will print from Tray 2. The product will not print a test page if it is in PowerSave or Sleep mode.

NOTE: A damaged formatter might interfere with the engine test. If the engine-test page does not print, try removing the formatter and performing the engine test again. If the engine test is then successful, the problem is almost certainly with the formatter, the control panel, or the cable that connects them.

Half self test

Perform a half self test to determine which image-formation process might be malfunctioning.

NOTE: It might be easier to perform the print/stop test to stop the product during the printing process. See Print/stop test on page 259.

1. Print a configuration page from the control panel.
2. Open the top cover after the paper advances half-way through the product, which is about 3 to 5 seconds after the main motor begins to rotate. The leading edge of the paper should have advanced past the print cartridge.
3. Remove the print cartridge.
4. Open the print cartridge drum shield to view the drum surface.

If a dark and distinct toner image is present on the drum surface, assume that the cleaning, conditioning, writing, and developing functions of the electrophotographic process are functioning correctly. Troubleshoot the failure as a transfer or fusing problem. If no image is present on the drum, perform the drum-rotation test.

Drum rotation test

The photosensitive drum, which is located in the print cartridge, must rotate in order for the print process to work. The photosensitive drum receives its drive from the main gear assembly. Use this procedure to determine whether the drum is rotating.

1. Open the top cover.
2. Remove the print cartridge.
3. Mark the cartridge drive gear with a felt-tipped marker. Note the position of the mark.
4. Install the print cartridge, and then close the top cover. The start-up sequence should rotate the drum enough to move the mark on the gear.
5. Open the product and inspect the mark on the cartridge drive gear. Verify that the mark moved. If there was no movement, inspect the main gear assembly to make sure that it connects with the print-cartridge gears. If the drive gears function but the drum does not move, replace the print cartridge.

NOTE: This test is especially important if refilled print cartridges are in use.

If a dark and distinct toner image is present on the drum surface, assume that the cleaning, conditioning, writing, and developing functions of the electrophotographic process are functioning correctly. Troubleshoot the failure as a transfer or fusing problem. If no image is present on the drum, perform the drum-rotation test.

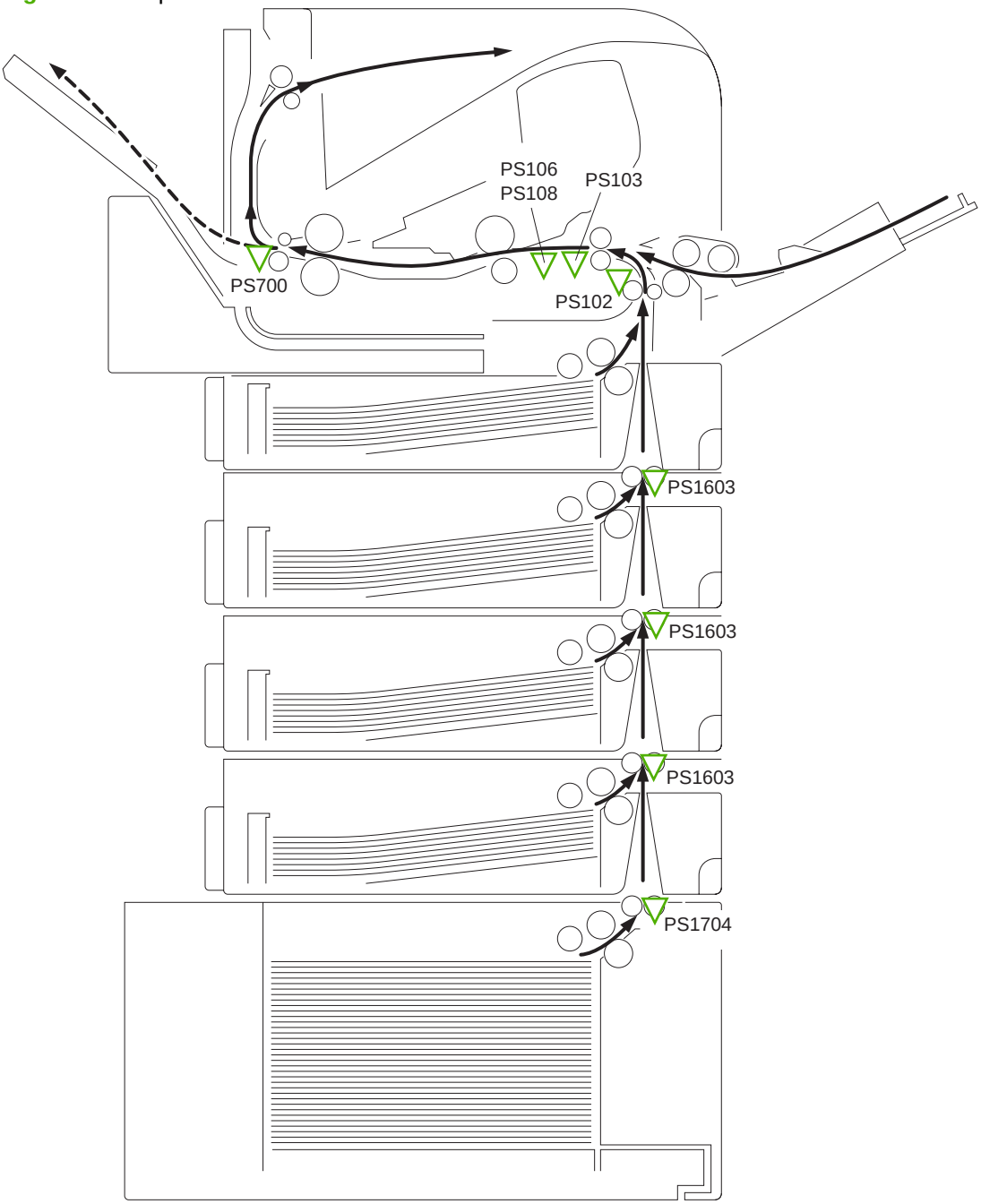
Paper path sensors test

NOTE: To view the function of each sensor and how to toggle them manually, see Manual sensor test (special mode test) on page 250.

This test displays the status of each paper path sensor and allows viewing of sensor status while printing internal pages.

1. Press Menu.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press OK.
3. Press the down arrow ▼ to highlight **PAPER PATH SENSORS**, and then press OK.
4. Select the paper path test options for the test you want to run.
5. Press OK to start the test, and then observe the control panel designators (see figure and table below). The sensors should display a **1** status as paper passes by the sensors.

Figure 7-2 Paper sensors



Designator	Sensor
A	Top of page sensor (PS103)
B	Pre-feed sensor (PS102)
C	Fuser delivery sensor (PS700)
D	Duplex sensor (PS1502)
E	Left-side paper width sensor (PS106)
F	Right-side paper width sensor (PS108)

Designator	Sensor
G	Tray 3 media path sensor (PS1603)[1]
H	Tray 4 media path sensor (PS1603)[1]
I	Tray 5 media path sensor (PS1603)[1]
J	Tray 6 media path sensor (PS1704)[1]

[1] This sensor is present only if the accessory is installed.

Paper path test

This diagnostic test generates one or more test pages that you can use to isolate the cause of jams.

To isolate a problem, you can specify which input tray to use, specify whether to use the duplex path, and specify the number of copies to print. Multiple copies can be printed to help isolate intermittent problems. The following options become available after you start the diagnostic feature:

- **PRINT TEST PAGE**: Run the paper path test from the default settings: Tray 2, no duplex, and one copy. To specify other settings, scroll down the menu and select the setting, and then scroll back up and select **PRINT TEST PAGE** to start the test.
- **SOURCE**: Select Tray 1, Tray 2, one of the optional trays, or the envelope feeder.
- **DESTINATION**: Select the standard bin or an optional output destination, such as a stacker. This menu item appears only if optional output bins are attached to the product.
- **DUPLEX**: Enable or disable 2-sided printing.
- **COPIES**: Set the numbers of copies to be printed; the choices are 1,10, 50, 100, or 500.

1. Press Menu .
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press OK.
3. Press the down arrow ▼ to highlight **PAPER PATH TEST**, and then press OK.
4. Select the paper path test options for the test you want to run.

Sensor test (interactive)

Manual sensor test (special mode test)

Use this diagnostic test to manually test the product sensors and switches. Each sensor is represented by a letter and number on the control panel display. See Table 7-3 Manual sensor diagnostic tests on page 251 for a definition of the sensor letter codes. A 1 below the letter indicates that paper is present. For the paper size sensor, the range of values is from 0 to 7.

1. Press Menu .
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press OK.
3. Press the down arrow ▼ to highlight **MANUAL SENSOR TEST 1**, and then press OK.
4. Use the arrow buttons to highlight the sensor letter code that you want to test, and then press OK.

To exit this diagnostic, press the stop button ⊗, and then select **EXIT DIAGNOSTICS**.

Menus cannot be opened during this test, so the OK button serves the same function as the stop button ⊗.

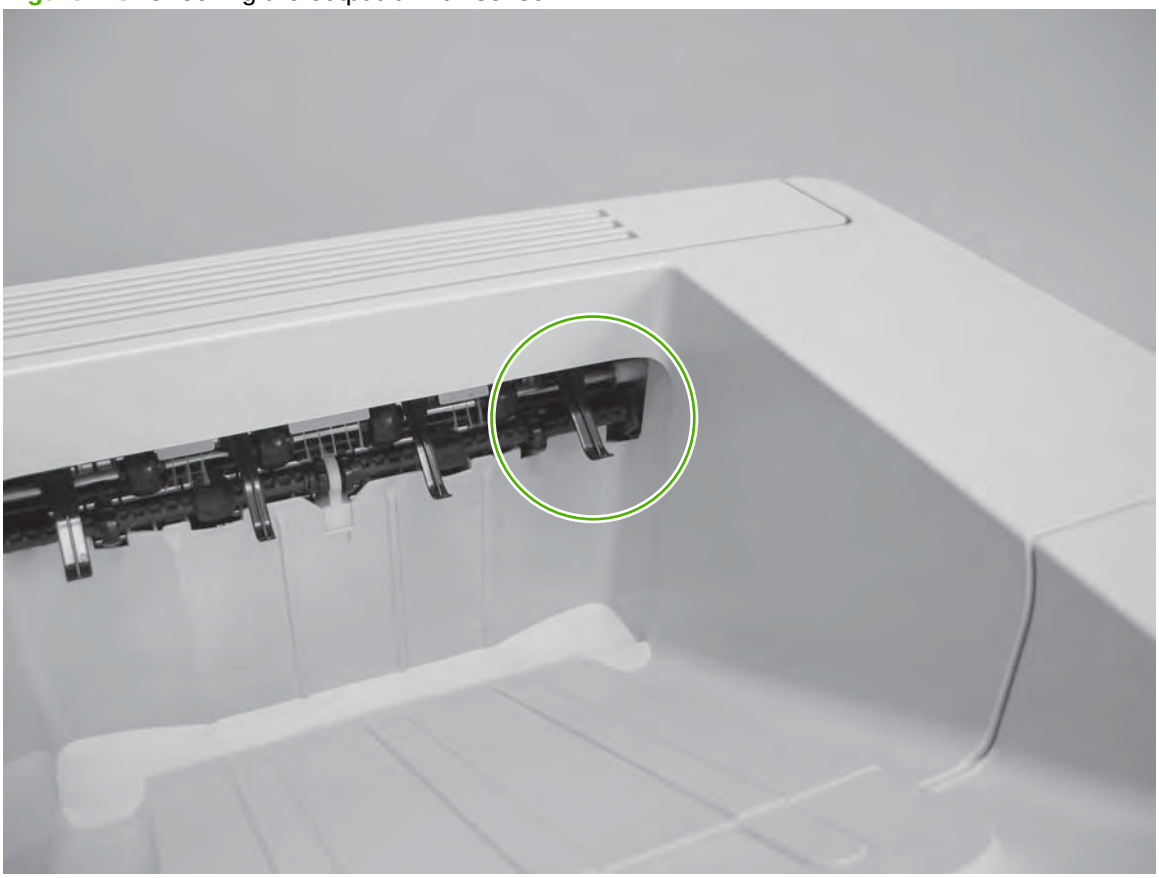
Table 7-3 Manual sensor diagnostic tests

Manual sensor test designator	Sensor or switch
A	Top of page sensor (PS103) (see Figure 7-8 Checking sensors in the print-cartridge area on page 257)
B	Tray 2 pre-feed sensor (PS102) (see Figure 7-6 Checking the Tray 2 pre-feed sensor on page 255)
C	Fuser delivery sensor (PS700) (see Figure 7-5 Checking the fuser delivery sensor on page 254)
D	Duplex sensor (PS1502)
E	Left-side paper width sensor (PS106) (see Figure 7-8 Checking sensors in the print-cartridge area on page 257)
F	Right-side paper width sensor (PS108) (see Figure 7-8 Checking sensors in the print-cartridge area on page 257)
G	Tray 3 media path sensor (PS1603) (see Figure 7-7 Checking media path sensors on page 256)
H	Tray 4 media path sensor (PS1603) (see Figure 7-7 Checking media path sensors on page 256)
I	Tray 5 media path sensor (PS1603) (see Figure 7-7 Checking media path sensors on page 256)
J	Tray 6 media path sensor (PS1704) (see Figure 7-7 Checking media path sensors on page 256)
K	Output bin full sensor (PS104) (see Figure 7-3 Checking the output bin full sensor on page 252)
L	Top cover open switch (SW101) (open and close the top cover)
M	Tray 1 paper present sensor (PS105) (see Figure 7-4 Checking the Tray 1 paper present sensor on page 253)
N	Tray 2 paper present sensor (PS101) (see Figure 7-9 Checking sensors in the Tray 2 area on page 258)
O	Tray 2 top of stack sensor (PS107) (see Figure 7-9 Checking sensors in the Tray 2 area on page 258)
P	Tray 2 paper size switches (SW102) (see Figure 7-9 Checking sensors in the Tray 2 area on page 258)

The following illustrations show the location of several of the product sensors and switches.

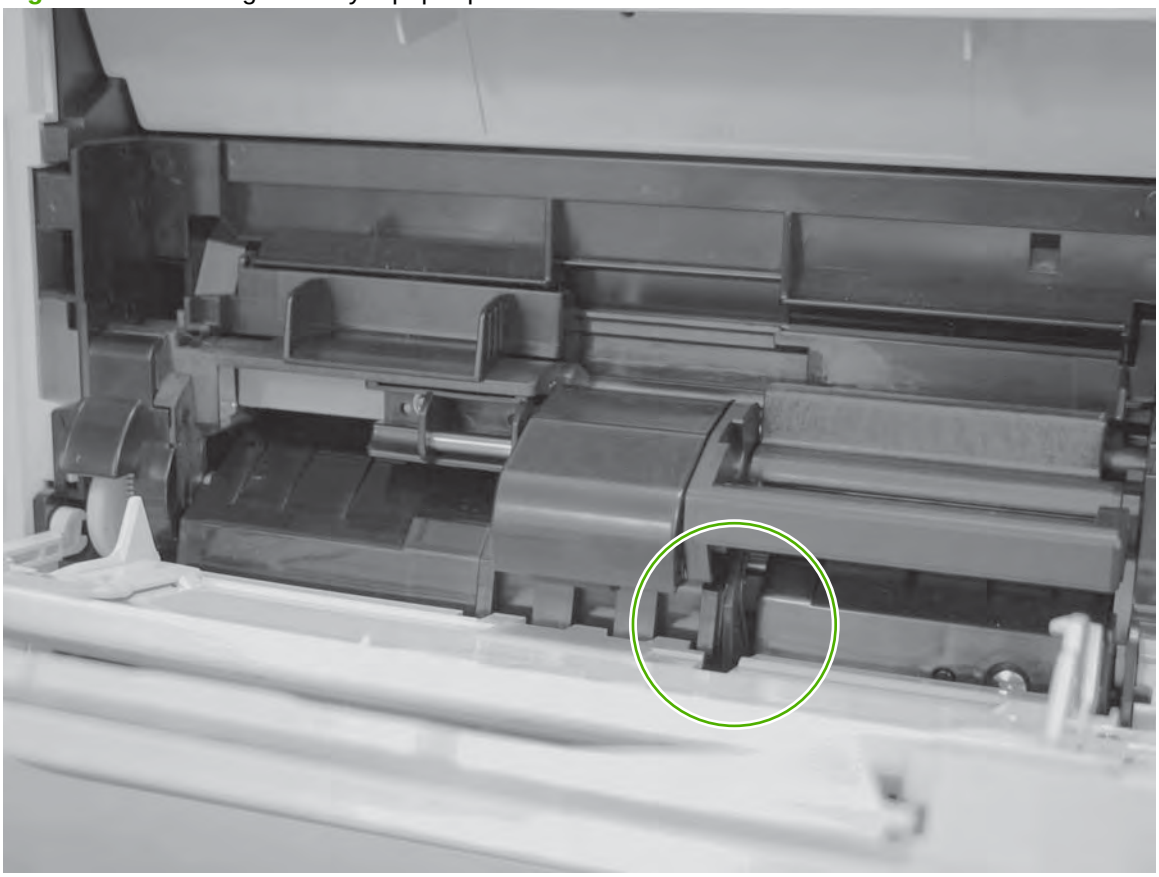
- Check the output bin full sensor (PS104) by running manual sensor test 1 and checking the status of designator K while moving the arm.

Figure 7-3 Checking the output bin full sensor



- Check the Tray 1 paper present sensor (PS105) by running manual sensor test 1 and checking the status of designator M.

Figure 7-4 Checking the Tray 1 paper present sensor

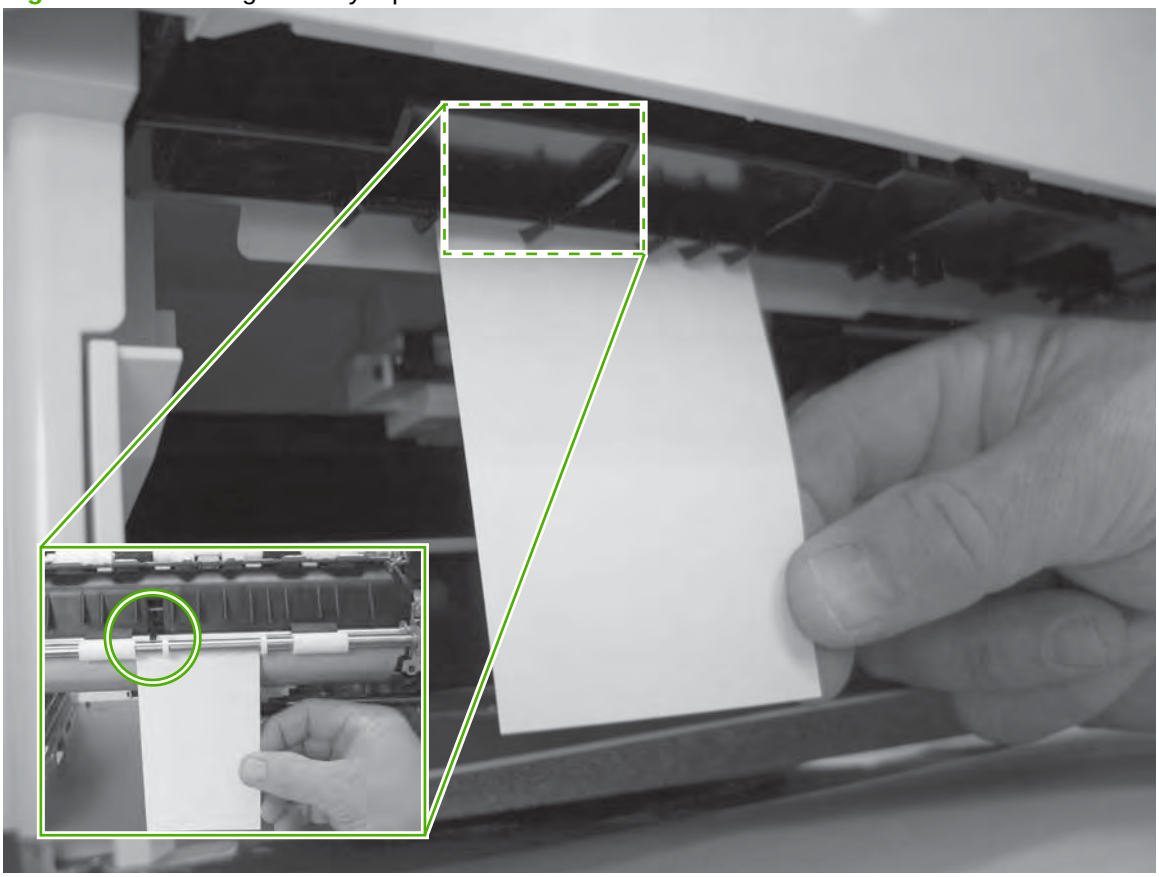


- Check the fuser delivery sensor (PS700) by running manual sensor test 1 and checking the status of designator C while toggling the sensor.

Figure 7-5 Checking the fuser delivery sensor

- Check the Tray 2 pre-feed sensor (PS102) by running manual sensor test 1 and checking the status of designator C while using a piece of stiff paper to toggle the sensor.

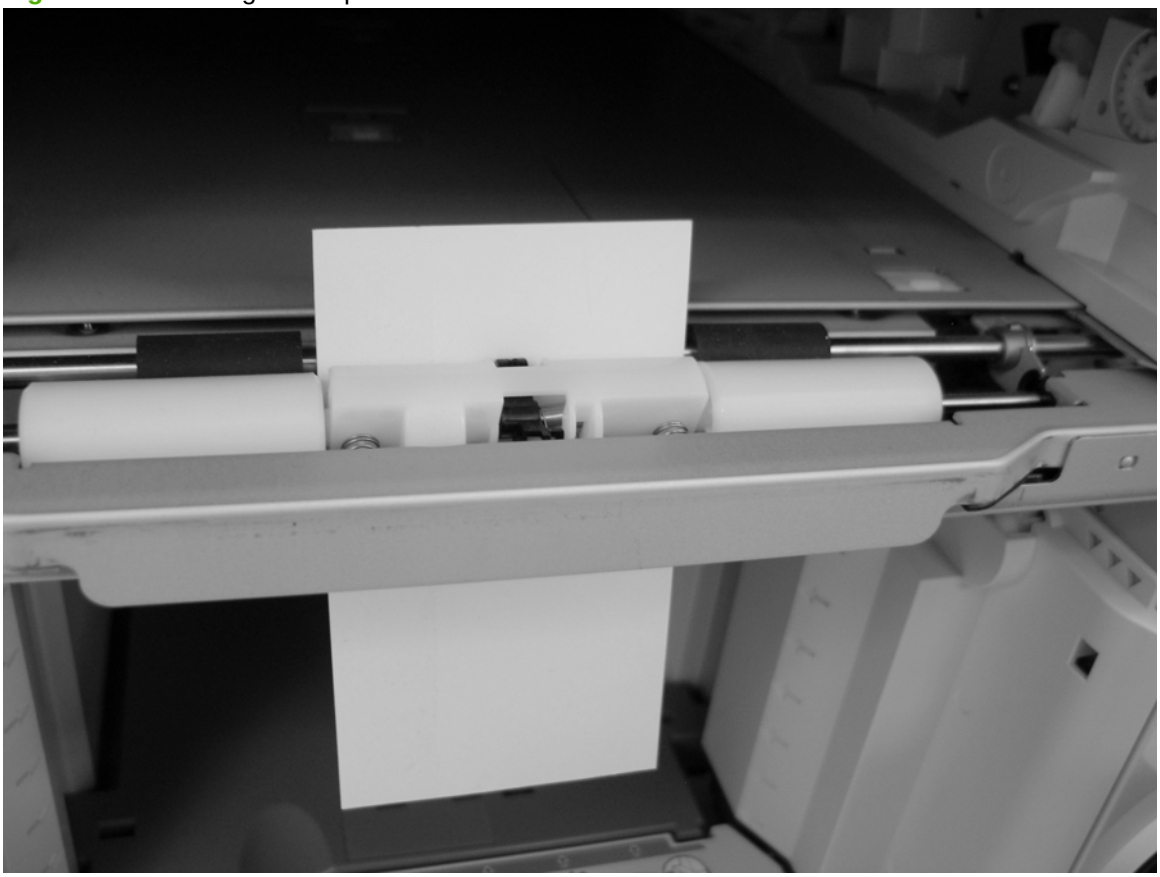
Figure 7-6 Checking the Tray 2 pre-feed sensor



- Check the media path sensors in trays 3, 4, 5, or 6 by running manual sensor test 1 and checking the status of the following designators while using a piece of stiff paper to toggle the sensor.
  - Tray 3 media path sensor (PS 1603): Check designator G.
  - Tray 4 media path sensor (PS 1603): Check designator H.

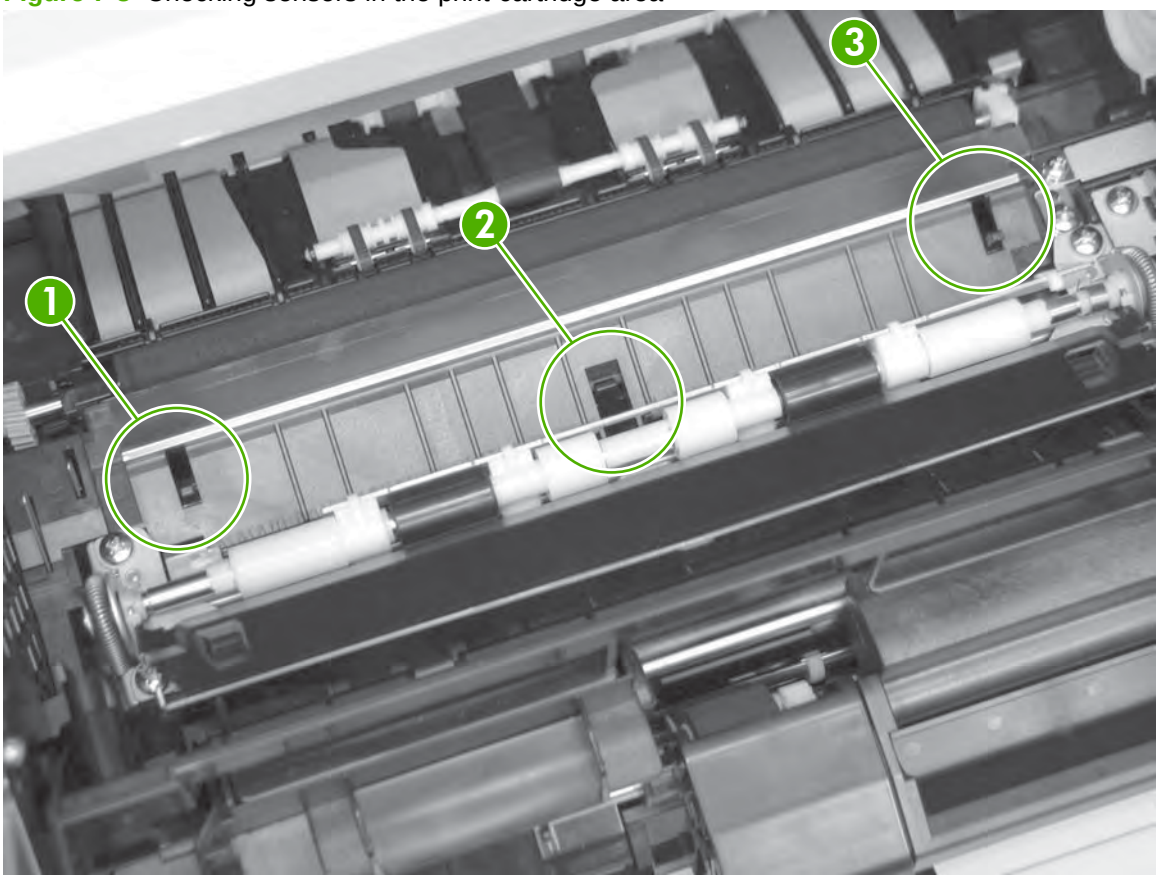
- Tray 5 media path sensor (PS 1603): Check designator I.
- Tray 6 media path sensor (PS 1704): Check designator J.

Figure 7-7 Checking media path sensors



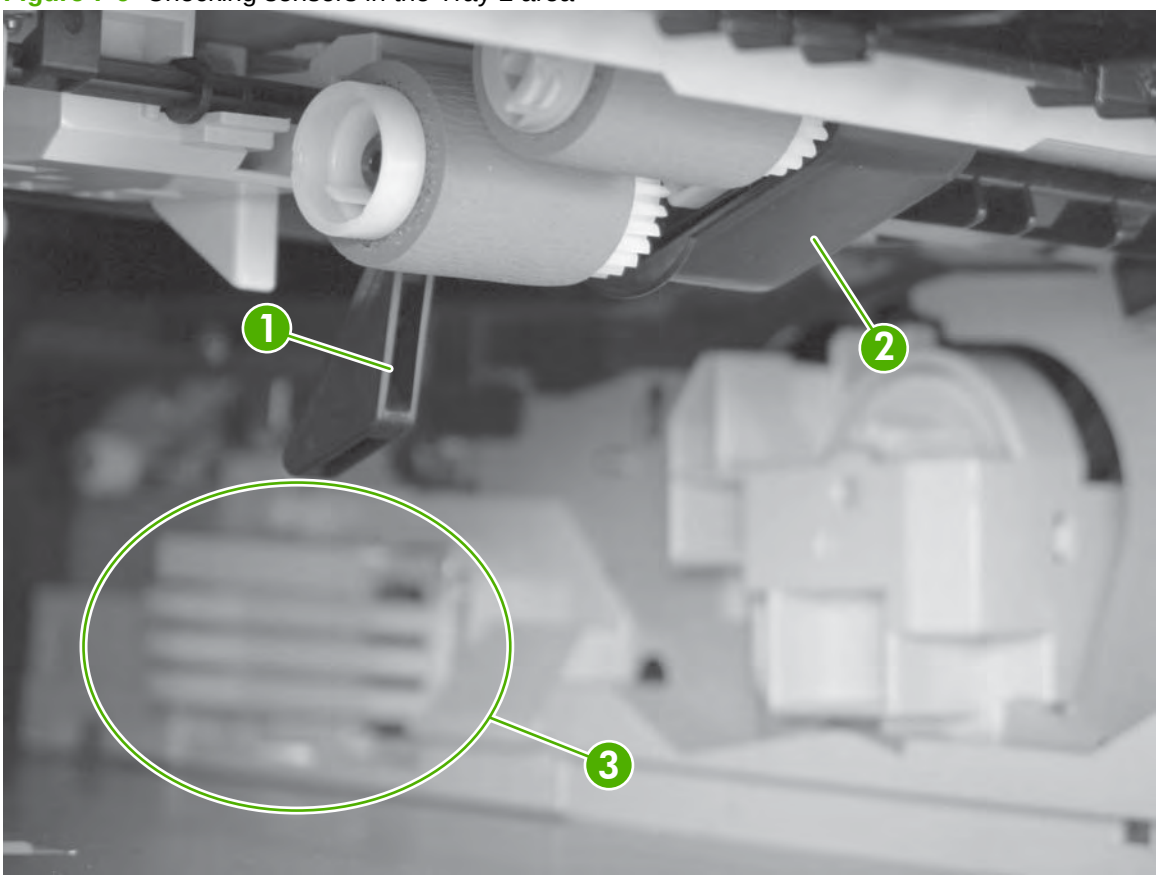
- Check the following sensors in the print-cartridge area.
  - **(1)**: Check the left-side paper width sensor (PS106) by running manual sensor test 1 and checking the status of designator E.
  - **(2)**: Check the top of page sensor (PS103) by running manual sensor test 1 and checking the status of designator A.
  - **(3)**: Check the right-side paper width sensor (PS108) by running manual sensor test 1 and checking the status of designator F.

Figure 7-8 Checking sensors in the print-cartridge area



- Check the following sensors in the Tray 2 area with the tray, loaded with paper, in the product.
  - **(1)**: Check the Tray 2 paper present sensor (PS101) by running manual sensor test 1 and checking the status of designator N.
  - **(2)**: Check the Tray 2 top of stack sensor (PS107) by running manual sensor test 1 and checking the status of designator O.
  - **(3)**: Check the Tray 2 paper size switches (SW102) by running manual sensor test 1 and checking the status of designator P.

Figure 7-9 Checking sensors in the Tray 2 area



NOTE: The sensors for trays 3, 4, 5, and 6 can be checked in the same manner with manual sensor test 2.

Manual sensor test 2 (special mode test)

Use this test to test paper path sensors and the paper-size switches manually.

1. Press Menu.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press OK.
3. Press the down arrow ▼ to highlight **MANUAL SENSOR TEST 2**, and then press OK.
4. Use the arrow buttons to highlight the sensor letter code that you want to test, and then press OK.

Table 7-4 Manual sensor test 2 diagnostic tests

Manual sensor test 2 designator	Sensor or switch	
Q	Tray 3 paper present sensor (PS1600)	**NOTE:** The locations of these switches and sensors are the same as those in Figure 7-9 Checking sensors in the Tray 2 area on page 258 with respect to the optional paper input accessory.
R	Tray 3 top of stack sensor (PS1601)	
S	Tray 3 paper size switches (SW1600)	
T	Tray 4 paper present sensor (PS1600)	
U	Tray 4 top of stack sensor (PS1601)	
V	Tray 4 paper size switches (SW1600)	
W	Tray 5 paper present sensor (PS1600)	
X	Tray 5 top of stack sensor (PS1601)	
Y	Tray 5 paper size switches (SW1600)	
Z	Tray 6 paper present sensor (PS1700)	
a	Tray 6 top of stack sensor (PS1701)	
b	Tray 6 paper size switches (SW1700)	
c	Envelope feeder—envelope present sensor (PS1800)	

Print/stop test

Use this diagnostic test to isolate the cause of problems such as image formation defects and jams within the engine. The test can be programmed to stop from 0 to 60,000 mS.

1. Press Menu .
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press OK.
3. Press the down arrow ▼ to highlight **PRINT/STOP TEST**, and then press OK.
4. Use the arrow buttons to set a stop time, when the print job should be interrupted, and then press OK.

Table 7-5 Print/Stop settings

Duration	Description
0 msecs	The leading edge of the paper stops approximately 28 mm beyond the “black” paper guide of the registration assembly.
100 msecs	The leading edge of the paper stops approximately 63 mm beyond the “black” paper guide of the registration assembly.
500 msecs	The leading edge of the paper stops just prior to the paper entering the “nip” of the fuser assembly; the nip is the gap between the pressure roller and the hot fusing roller.
600 msecs	The leading edge of the paper stops approximately 5 mm prior to the paper encountering the fuser assembly delivery photo sensor flag.

Table 7-5 Print/Stop settings (continued)

Duration	Description
1,200 msecs	(Simplex print operation) The leading edge of the paper stops 35 mm past the face-down delivery stacker rollers. The trailing edge of the paper is approximately 30 mm from the “nip” of the fusing rollers.
2,250 msecs	(Duplex print operation) The leading edge of the paper has passed through the fuser assembly and into the output stacker rollers. The paper has now reversed direction and entered the duplex accessory. The leading edge of the paper stops approximately 15 mm before encountering the duplex assembly re-pick photosensor (PS1502).

If the timer is set to a value that is greater than the job-print time, you can recover the product in one of two ways.

- After the print job is completed press the stop button ⊗ to return to the **DIAGNOSTICS** menu before the timer times out.
- After the timer times out, press the stop button ⊗. Activate the door switch to restart the engine and return it to a normal state.

When the timer trips, the control panel display shows the message **PRINTING STOPPED To continue press OK**. Pressing OK will print the previously selected job. If you do not want the previous job to print, press the stop button ⊗ first, and then press OK .

Component tests

These tests activate the selected component.

1. Press Menu .
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press OK.
3. Press the down arrow ▼ to highlight **COMPONENT TEST**, and then press OK.
4. Press the down arrow ▼ to highlight the particular component test that you want to perform, and then press OK.

The following table describes the component tests.

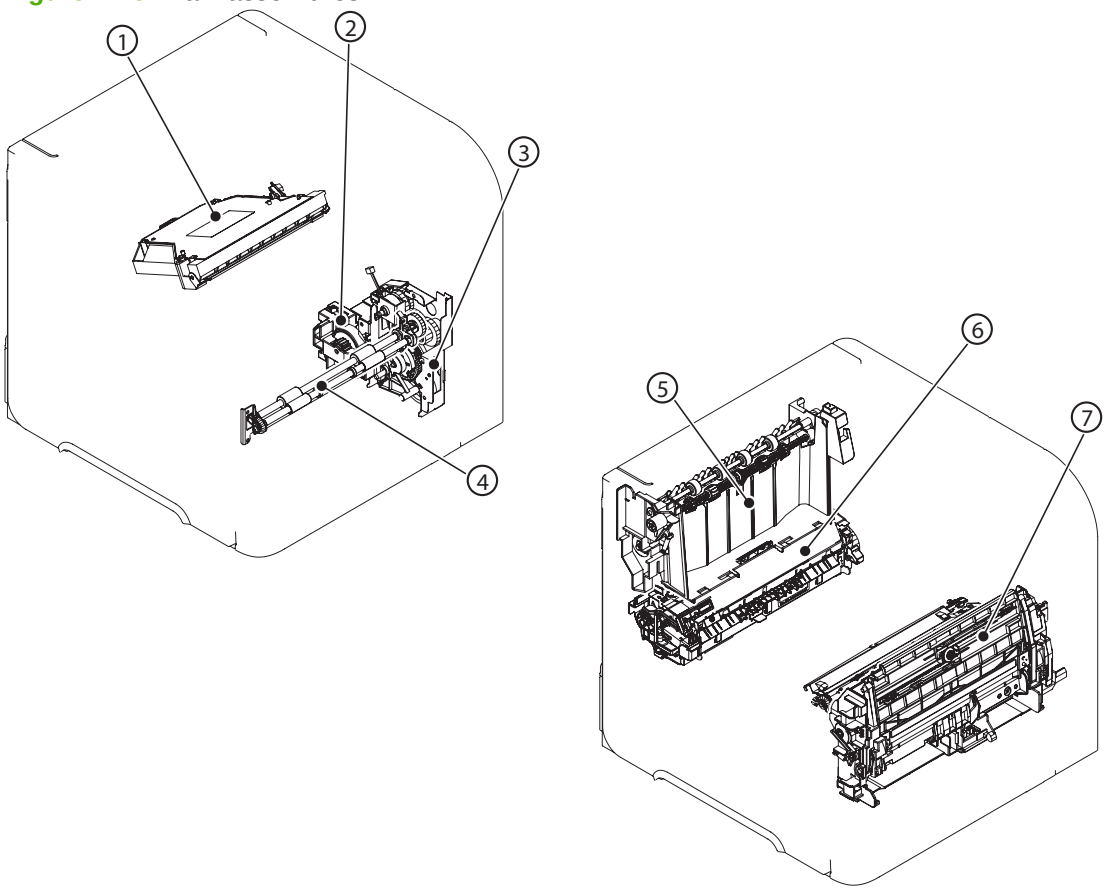
Component test	Description
DRUM MOTOR	This test activates the drum motor.
LASER SCANNER MOTOR	This test activates the laser scanner motor.
FUSER MOTOR	This test activates the fuser motor and drive gears.
TRAY PICKUP MOTOR	This test activates the tray pickup motor.
FEED ROLLER CLUTCH	This test activates the paper feed roller clutch.
MP TRAY SOLENOID	These tests activate the pickup solenoid for the selected input tray.
TRAY 2 PICKUP SOLENOID	
TRAY 3 PICKUP SOLENOID	
TRAY 4 PICKUP SOLENOID	
TRAY 5 PICKUP SOLENOID	
TRAY 6 PICKUP SOLENOID	
DUPLEXER REVERSE MOTOR	This test activates the duplexing reverse motor.
DUPLEX FEED MOTOR	This test activates the duplexing feed motor.

Diagrams

Block diagrams

Main assemblies

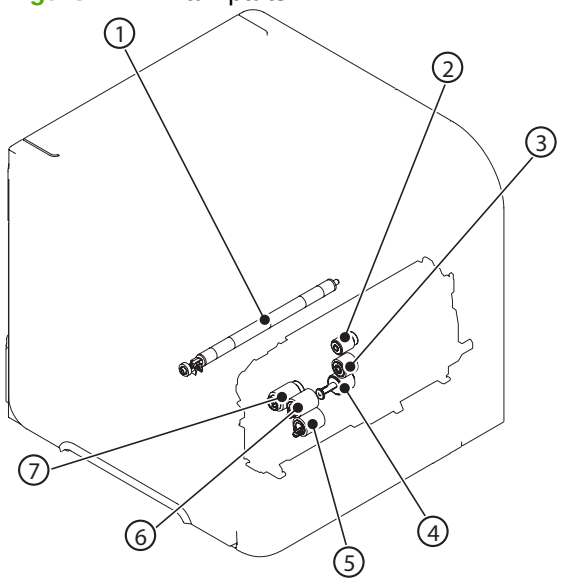
Figure 7-10 Main assemblies



1	Laser/scanner unit
2	Lifter drive unit
3	Tray 2 pickup drive unit
4	Feed roller unit
5	Delivery unit
6	Fuser
7	Multipurpose tray pickup unit

Main parts

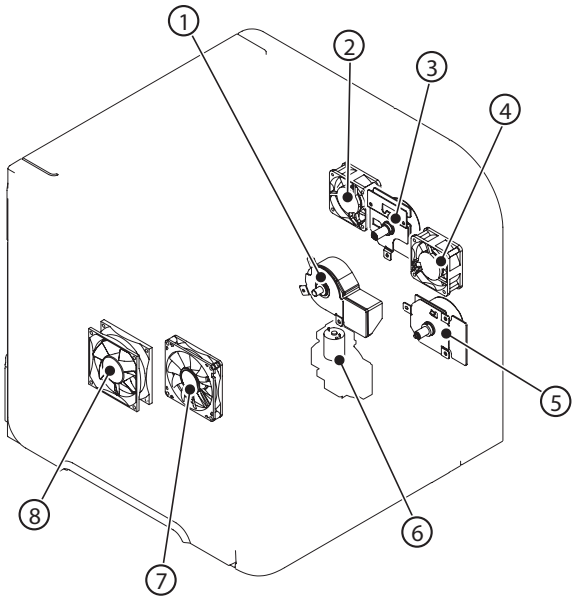
Figure 7-11 Main parts



1	Transfer roller
2	Multipurpose tray pickup roller
3	Multipurpose tray feed roller
4	Multipurpose tray separation roller
5	Input tray separation roller (resides in input tray)
6	Input tray feed roller
7	Input tray pickup roller

Motors and fans

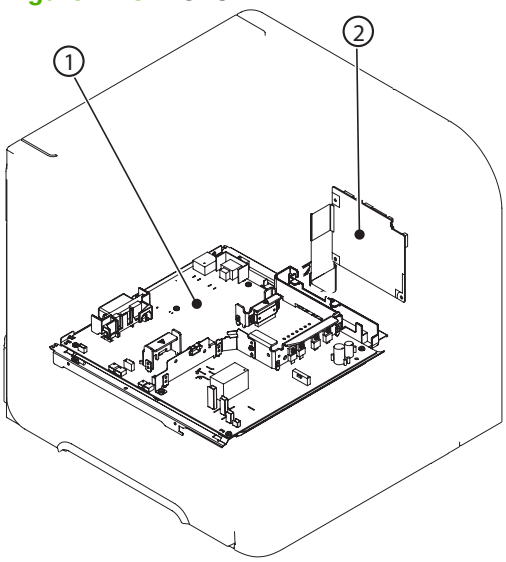
Figure 7-12 Motors and fans



1	Fuser motor (M299)
2	Fan (FN102)
3	Drum motor (M102)
4	Fan (FN103)
5	Feed motor (M101)
6	Lifter motor (M103)
7	Fan (FN301)
8	Fan (FN101)

PCAs

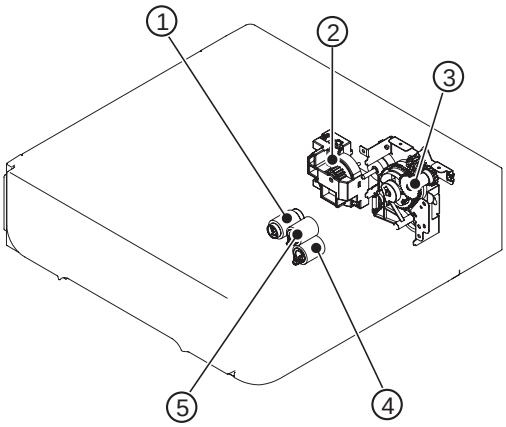
Figure 7-13 PCAs



1	Power supply PCA
2	DC controller PCA

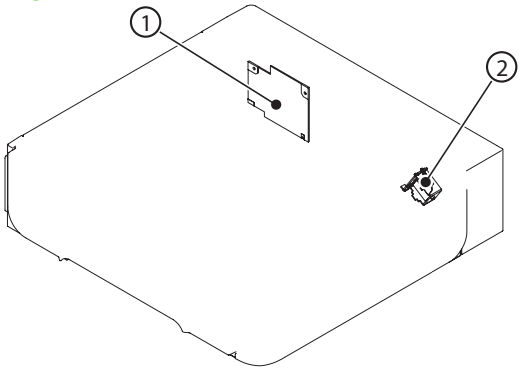
500-sheet feeder

Figure 7-14 500-sheet feeder main parts



1	Paper feeder pickup roller
2	Paper feeder lifter driver unit
3	Paper feeder pickup drive unit
4	Paper feeder separation roller
5	Paper feed roller

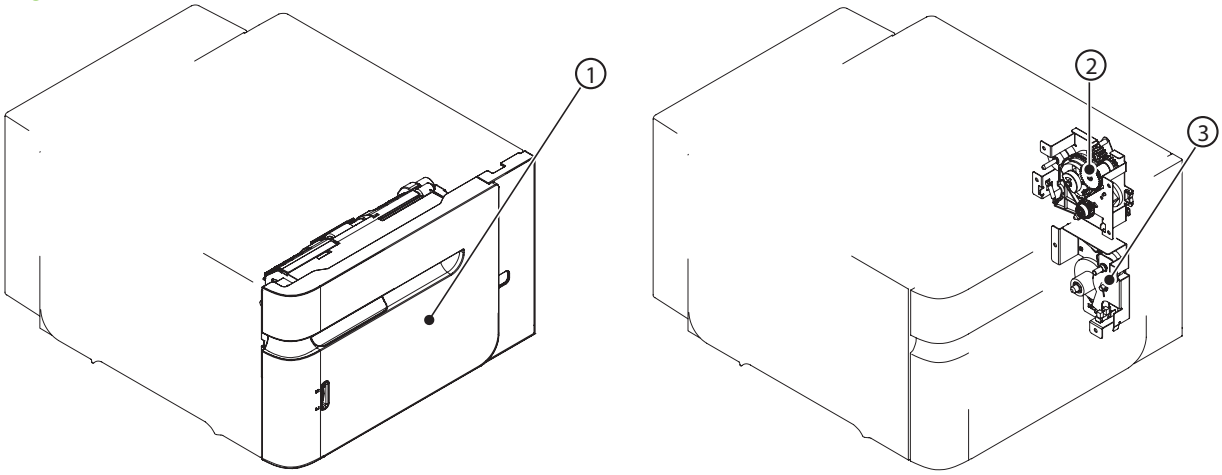
Figure 7-15 500-sheet feeder solenoid and PCA



1	Driver PCA
2	Pickup solenoid

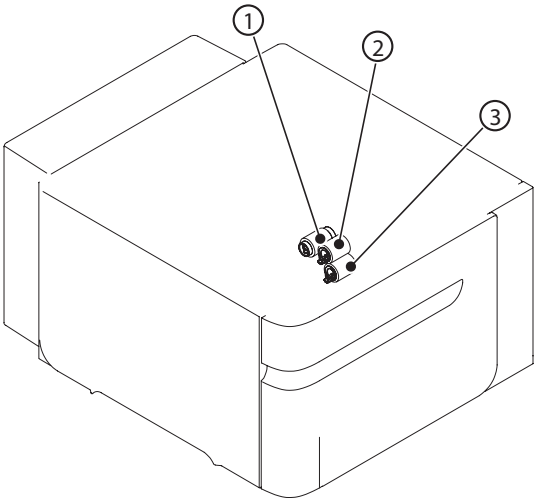
1,500-sheet feeder

Figure 7-16 1,500-sheet feeder main units



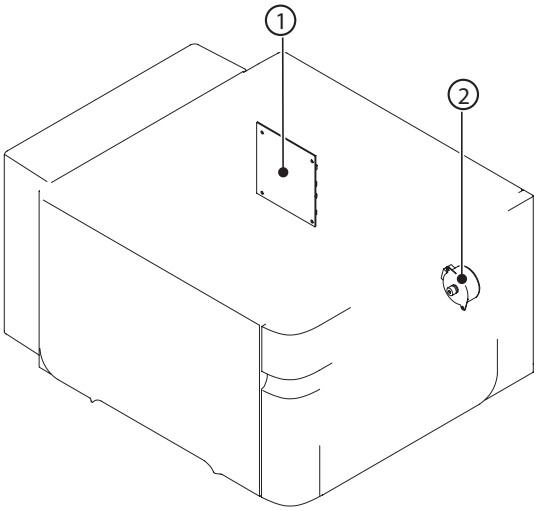
1	Front door unit
2	Pickup drive unit
3	Lifter drive unit

Figure 7-17 1,500-sheet feeder main parts



1	Pickup roller
2	Feed roller
3	Separation roller

Figure 7-18 1,500-sheet feeder motor and PCA



1	Driver PCA
2	Lifter motor

Connectors

DC controller PCA connectors

Figure 7-19 DC controller PCA connectors

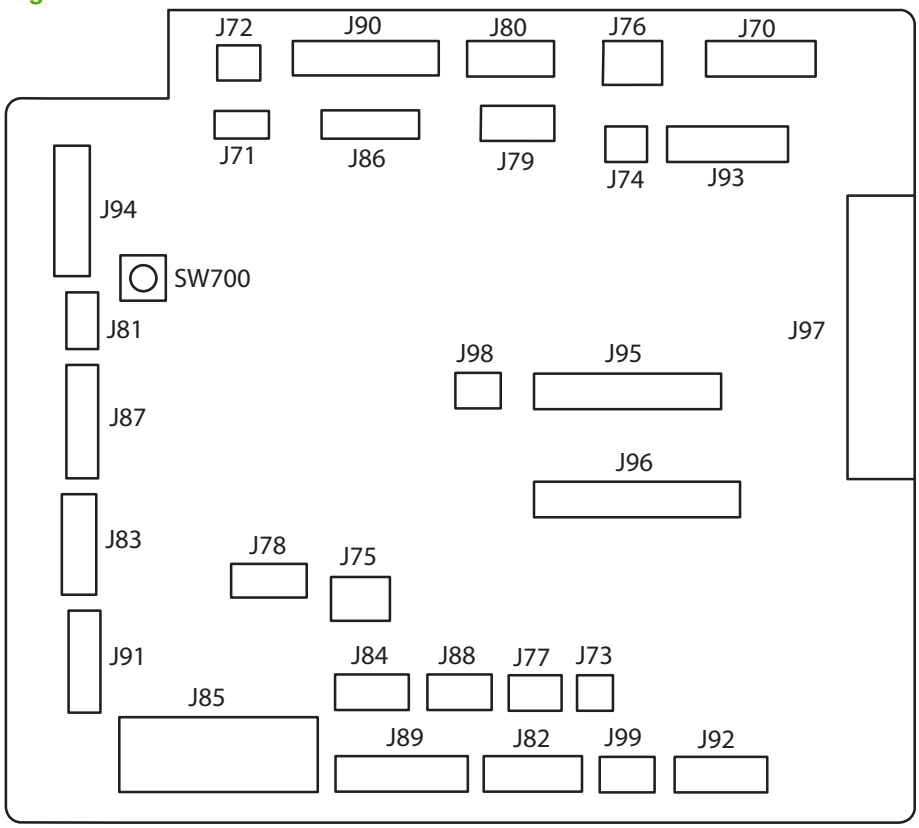


Table 7-6 DC controller connectors

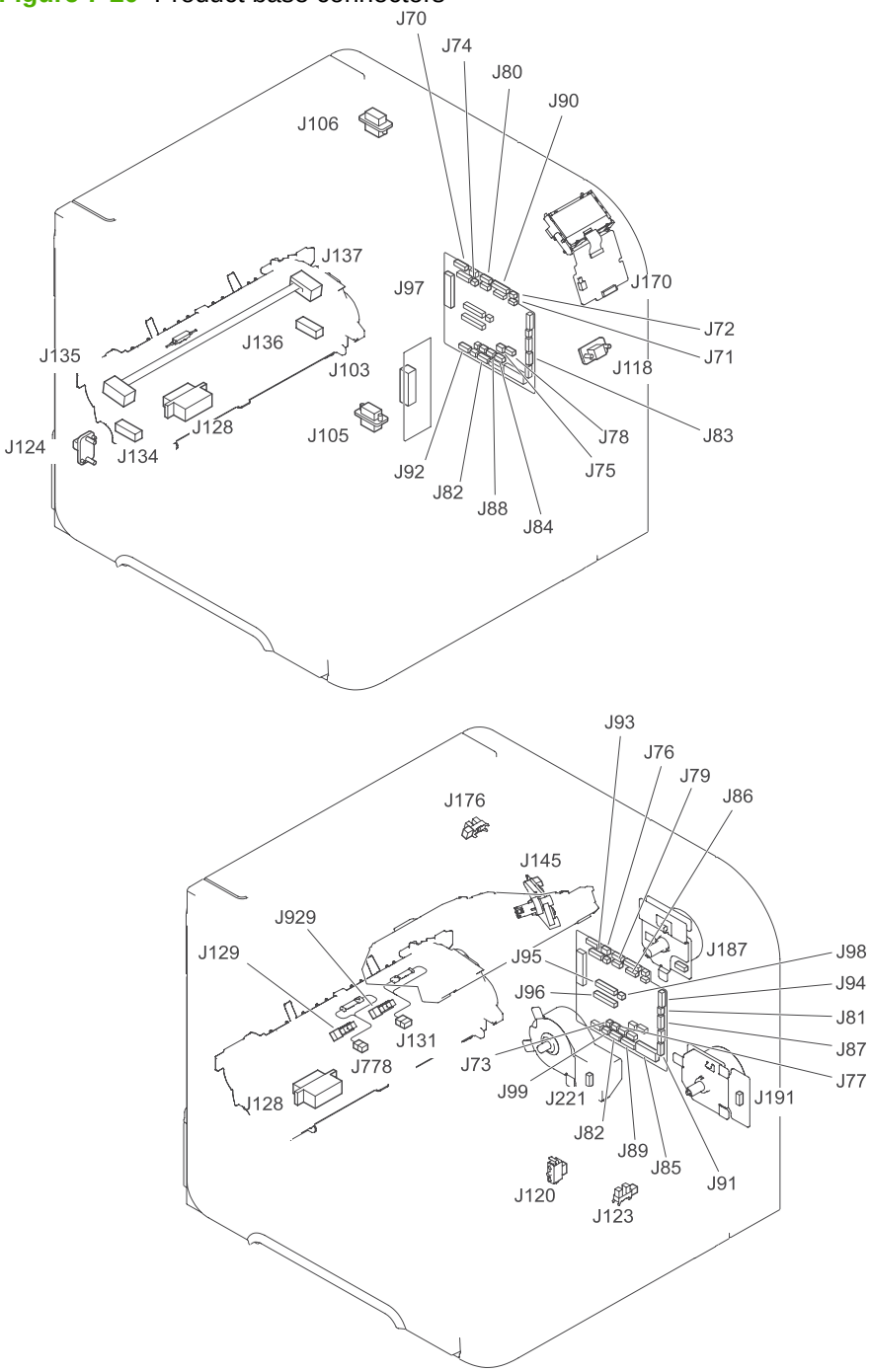
Connector	Functionality	Pin configuration
J70	Control panel connector	8-pin
J71	**SL102** Tray 1 pickup solenoid	2-pin
J72	**SL101** Tray 2 pickup solenoid	2-pin
J73	**M103** Tray 2 lift motor	2-pin
J74	**TG101** memory tag I/O	2-pin
J75	**FN102** cooling fan	3-wire
J76	**PS104** face-down output full sensor	3-pin
J77	**CL101** feed clutch	3-pin (2-wire)
J78	**SW101** door open switch	3-pin
J79	**FN103** cooling fan	4-pin (3-wire)
J80	Not used	6-pin
J81	**PS105** Tray 1 media present sensor	3-pin
J82	Fusing assembly	7-wire

Table 7-6 DC controller connectors (continued)

Connector	Functionality	Pin configuration
J83	Envelope feeder accessory	5-pin
J84	Duplex accessory	6-pin
J85	Power supply PCA (+24Vdc/3.3Vdc)	6-wire
J86	Scanner motor/beam detect	7-pin
J87	**M102** drum motor	8-pin (7-wire)
J88	Paper deck accessory	5-pin
J89	**M299** fusing motor	10-pin
J90	Stacker/stacker-stapler/mailbox	8-pin
J91	**M101** feed motor	7-pin
J92	**PS101** Tray 2 media present sensor **PS107** Tray 2 media stack sensor 1 **PS907** Tray 2 media stack sensor 2	8-pin
J93	Laser/driver PCA	11-pin
J94	**PS102** pre-feed sensor **PS108** media width sensor 2 **PS103** top of page sensor **PS106** media width sensor 1	12-pin
J95	Power supply PCA	18-pin
J96	Power supply PCA	20-pin
J97	Intermediate PCA to formatter PCA	32-pin ribbon
J98	Not used	
J99	**SW102** Tray 2 media size switches	4-pin
TB700	3.3 volts DC	
TB701	GRN	

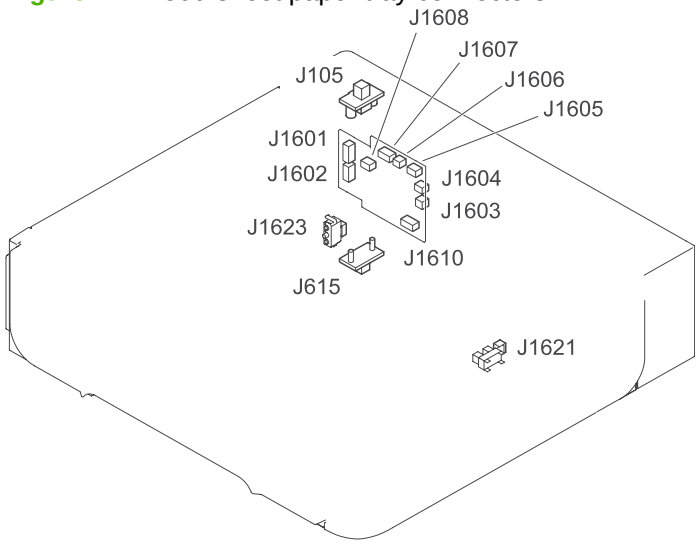
Product base connectors

Figure 7-20 Product base connectors



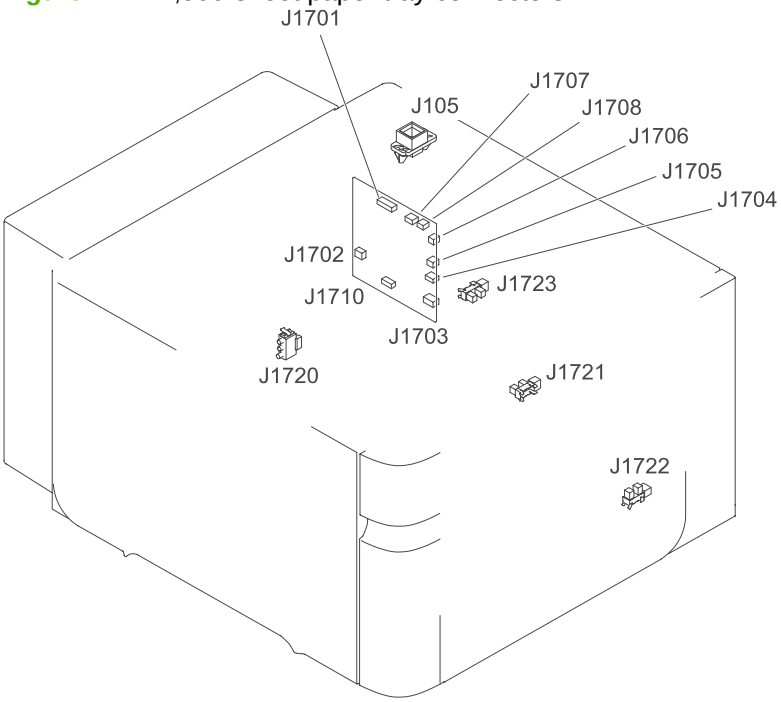
500-sheet paper tray connectors

Figure 7-21 500-sheet paper tray connectors



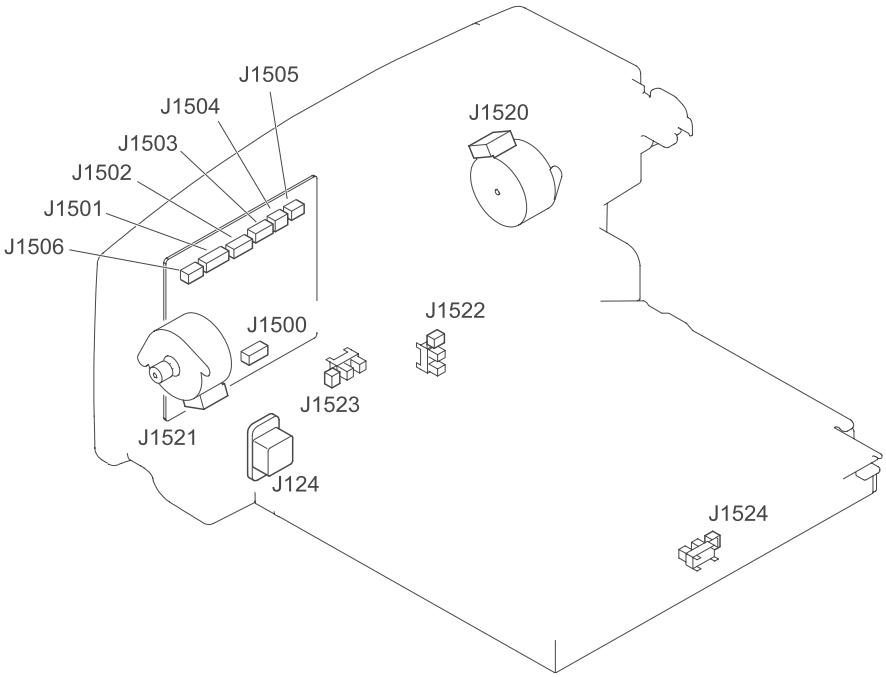
1,500-sheet paper tray connectors

Figure 7-22 1,500-sheet paper tray connectors



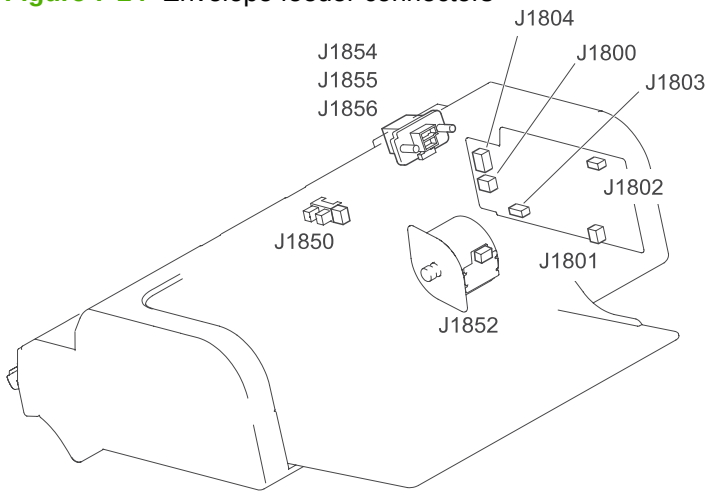
Duplexer connectors

Figure 7-23 Duplexer connectors



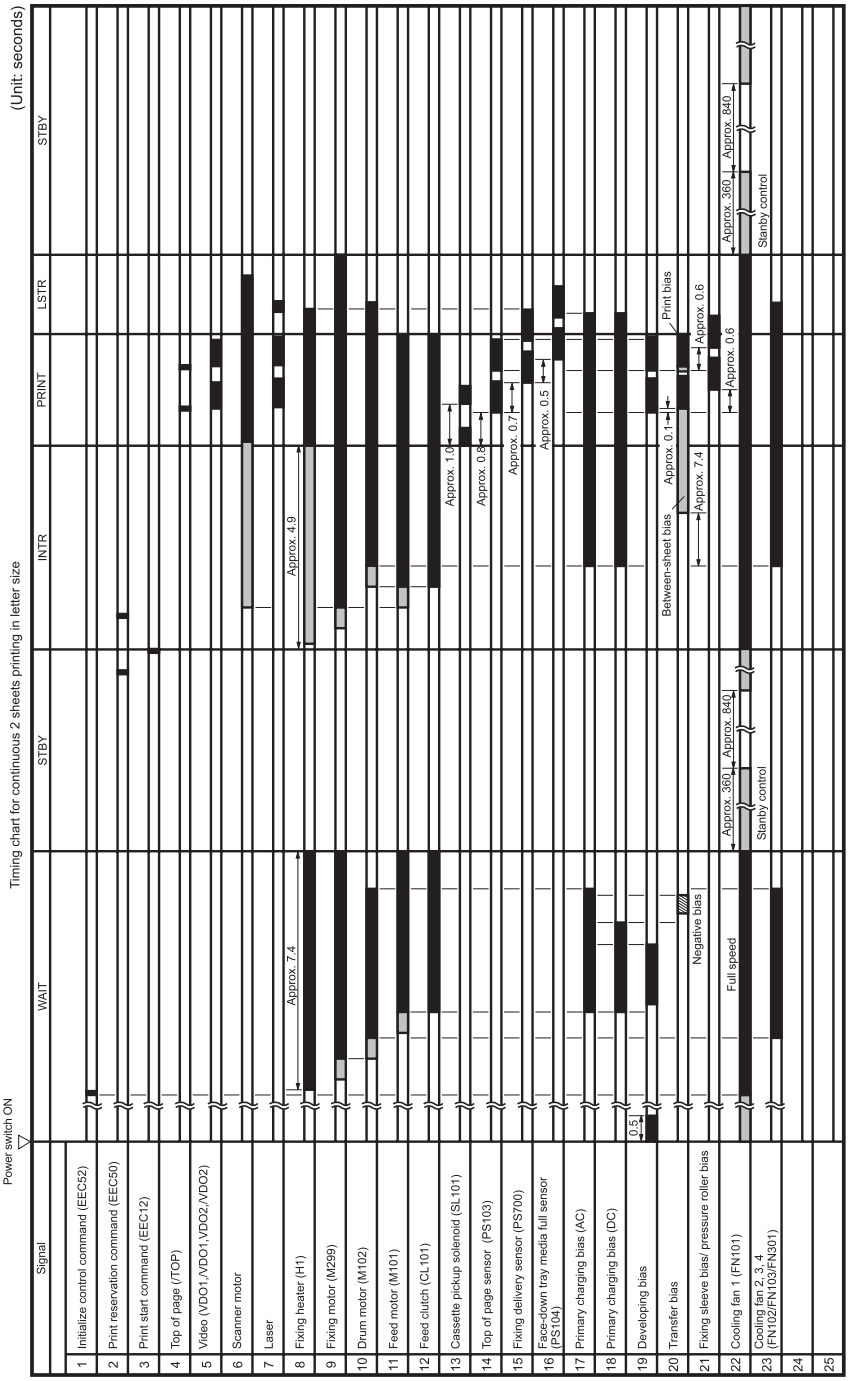
Envelope feeder connectors

Figure 7-24 Envelope feeder connectors



General timing chart

Figure 7-25 General timing chart



Circuit diagrams

Figure 7-26 General circuit diagram (1 of 2)

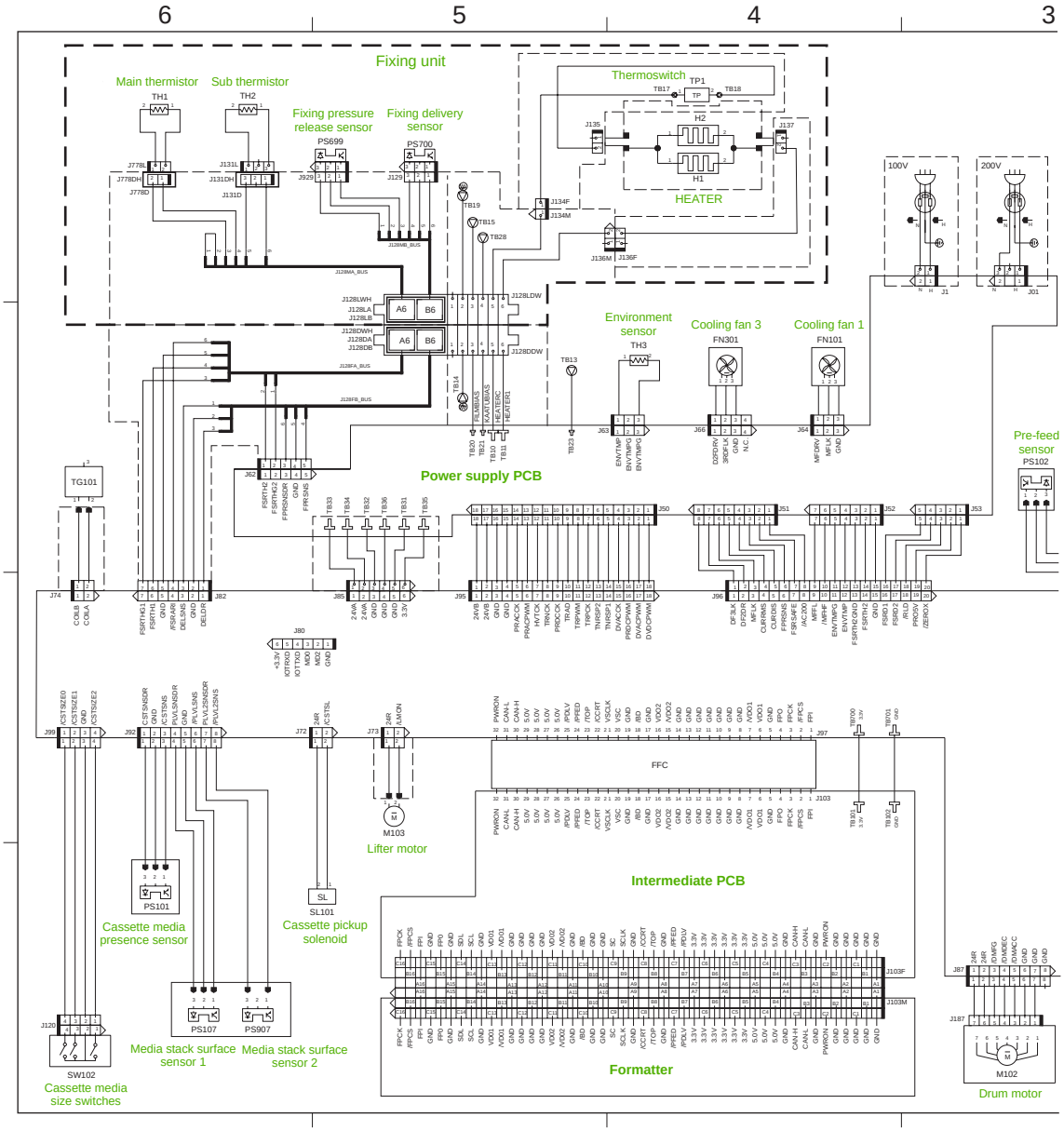


Figure 7-27 General circuit diagram (2 of 2)

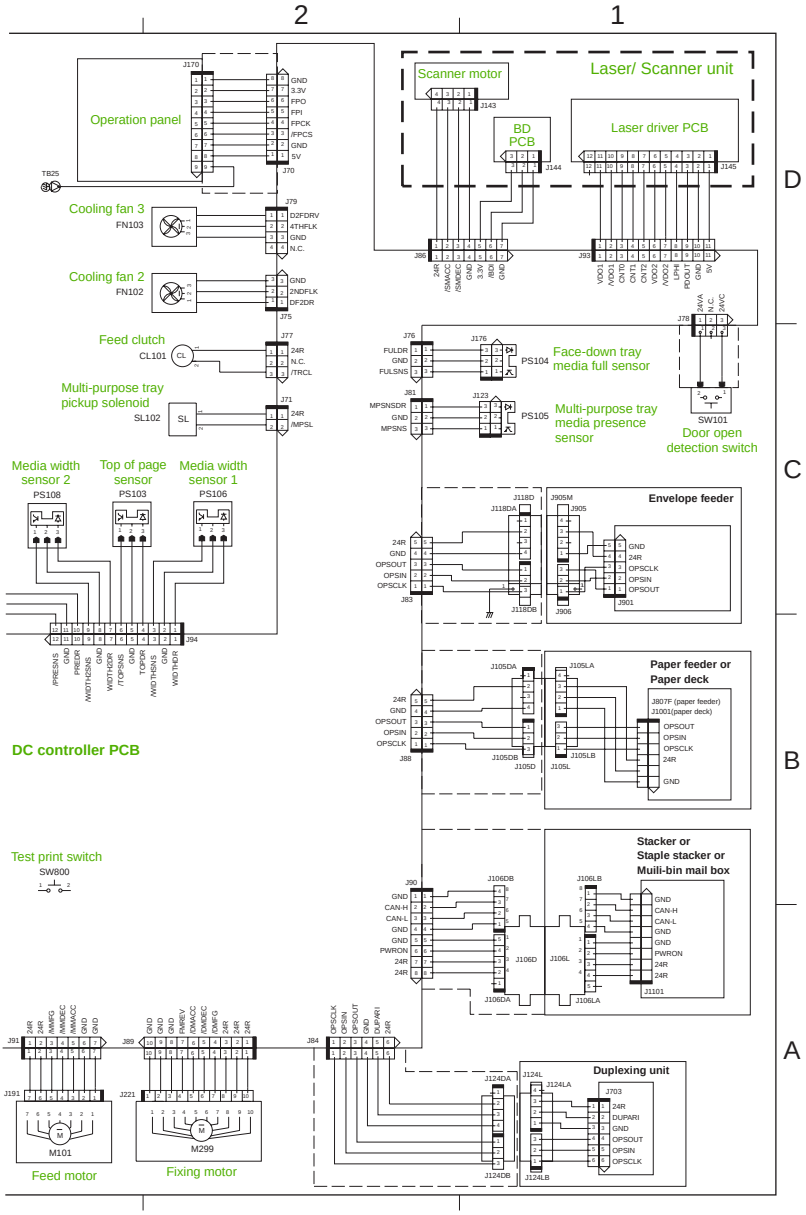


Figure 7-28 500-sheet paper tray circuit diagram

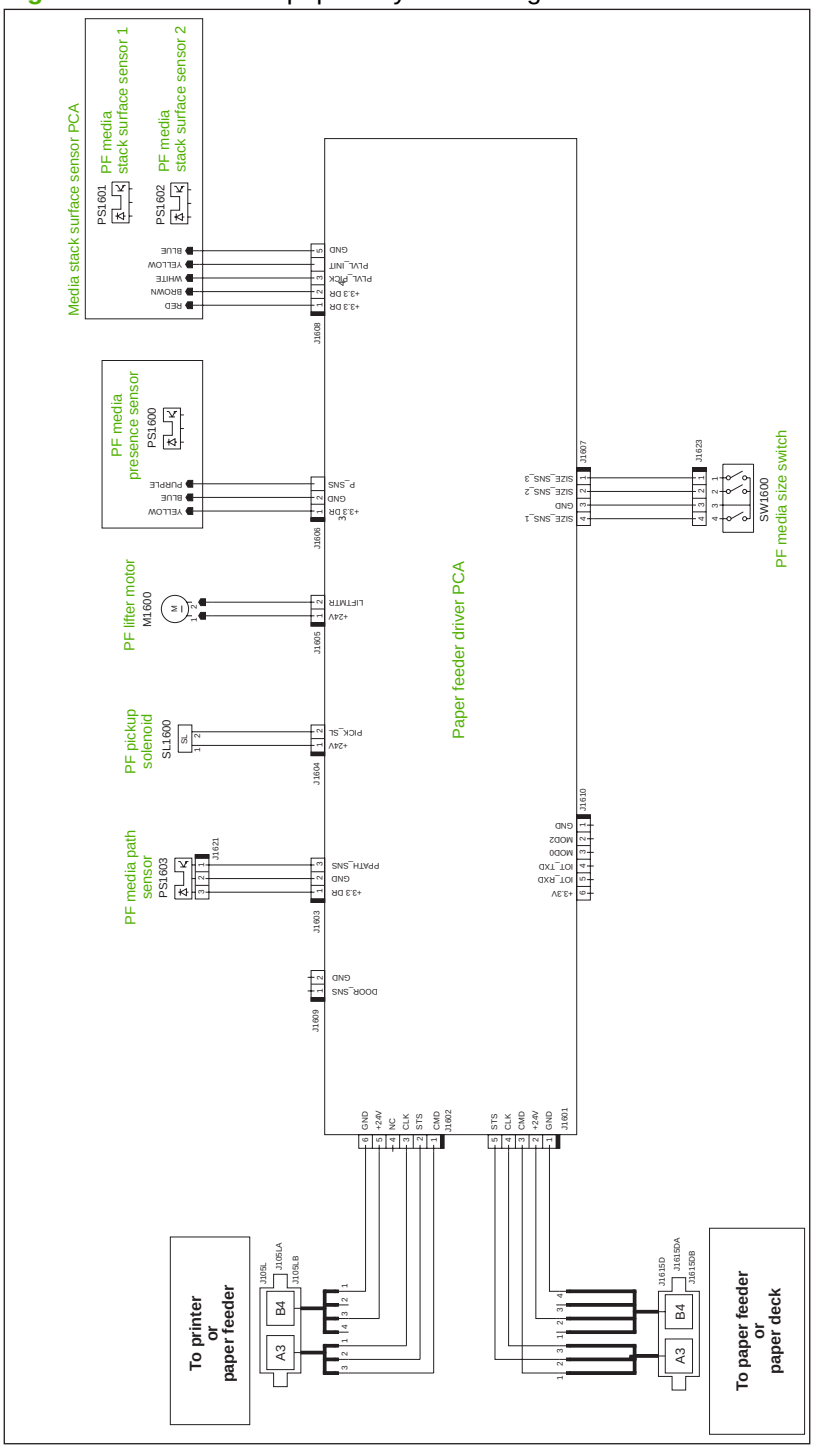


Figure 7-29 1,500-sheet paper tray circuit diagram

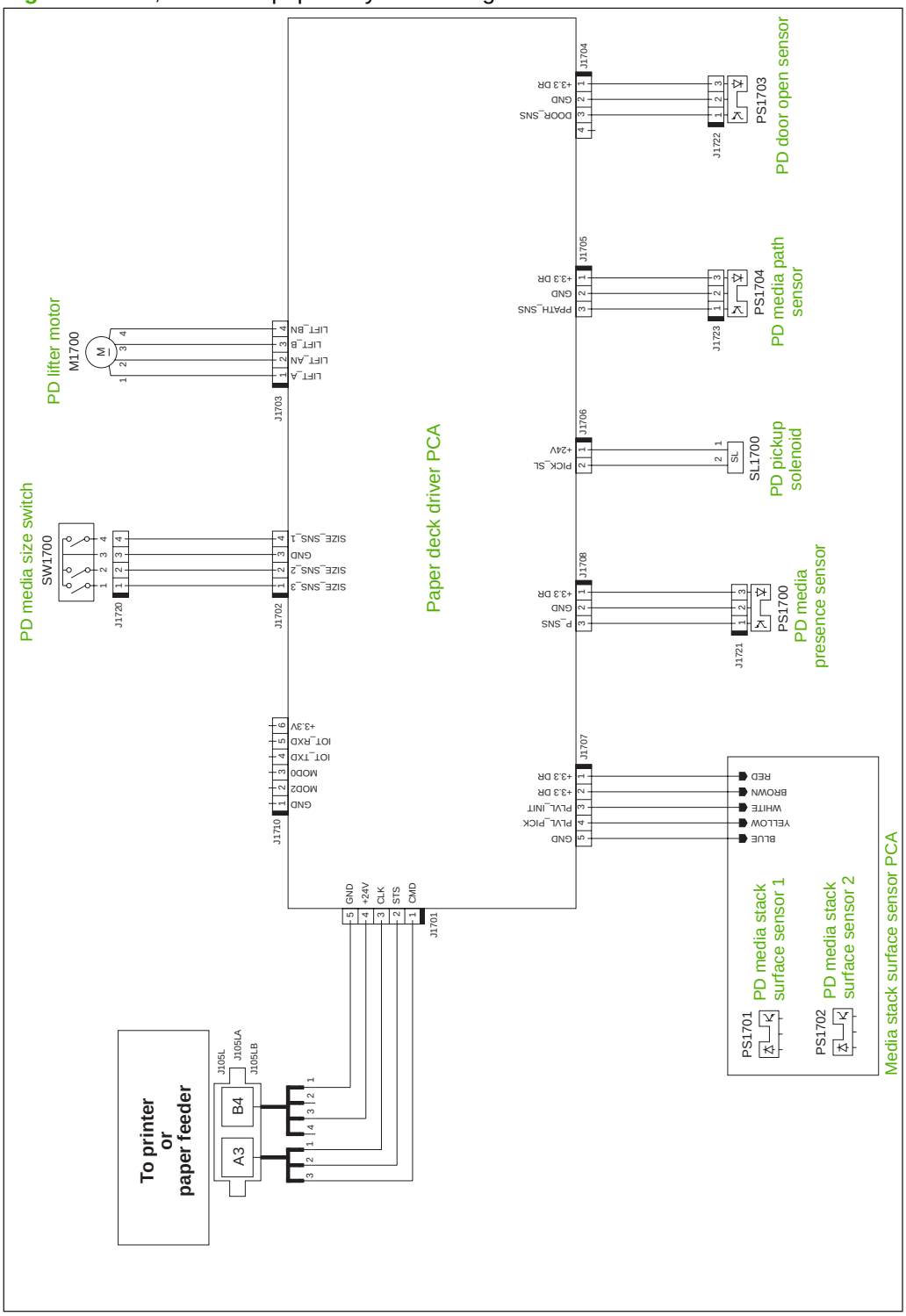


Figure 7-30 Envelope feeder circuit diagram

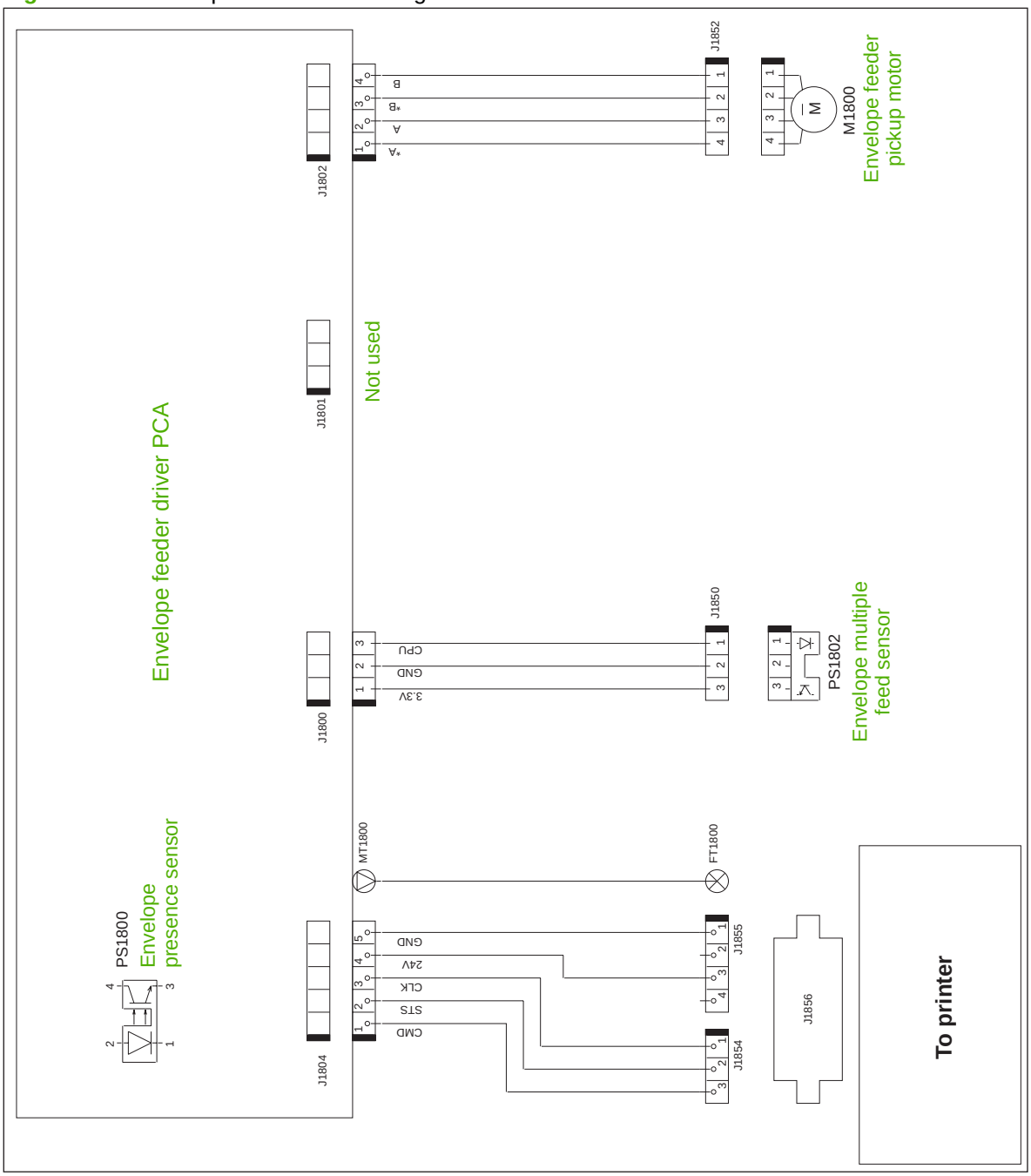
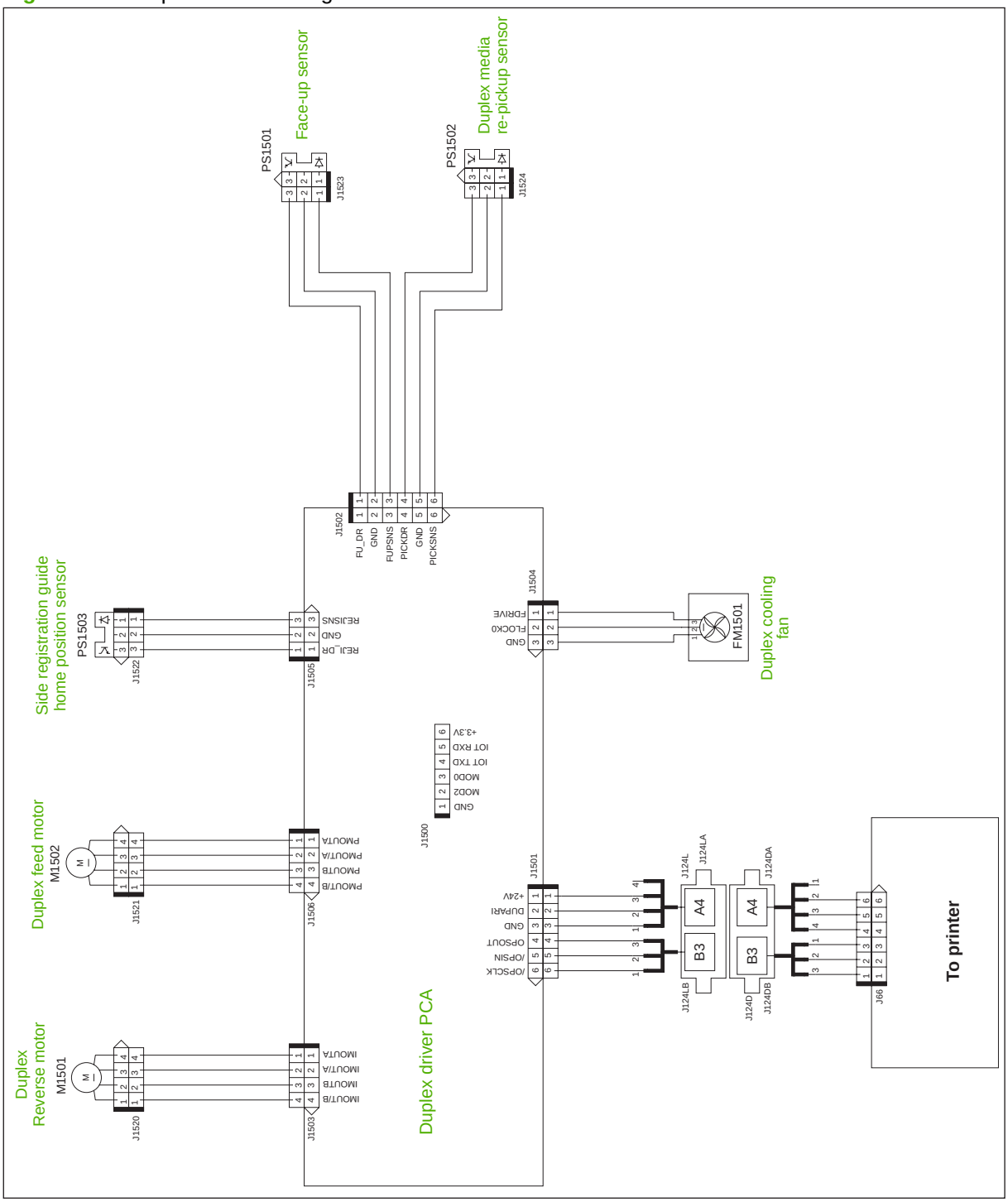


Figure 7-31 Duplexer circuit diagram



Print quality troubleshooting tools

Repetitive image defect ruler

Defects on product rollers can cause image defects to appear at regular intervals on the page, corresponding to the circumference of the roller that is causing the defect. Measure the distance between defects that recur on a page. Use the following table or the repetitive-defect ruler to determine which roller is causing the defect. To resolve the problem, try cleaning the roller first. If the roller remains dirty after cleaning or if it is damaged, replace the part that is indicated in Table 7-7 Repetitive defects on page 280.

△ **CAUTION:** Do not use solvents or oils to clean rollers. Instead, rub the roller with lint-free paper. If dirt is difficult to remove, rub the roller with lint-free paper that has been dampened with water.

NOTE: The following table replaces the graphical repetitive defect ruler. You can make your own ruler by using these measurements. For the most accurate results, use a metric ruler.

Table 7-7 Repetitive defects

Component	Distance between defects
Primary charging roller	37.7 mm (1.5 inches)
Transfer roller	47 mm (1.85 inches)
Developer roller	63 mm (2.5 inches)
Tray 1 pickup roller	63 mm (2.5 inches)
Tray 1 feed roller	79 mm (3.1 inches)
Tray 1 separation roller	
Tray 2 feed roller	79 mm (3.1 inches)
Tray 2 pickup roller	
Tray 2 separation roller	
Fuser sleeve unit or pressure roller	94 mm (3.75 inches)
Photosensitive drum	94 mm (3.75 inches)

NOTE: Defects on the tray pickup rollers or the Tray 1 pickup roller do not cause a repetitive defect. Defects on these rollers cause a defect to appear only on the leading edge of the image.

Cleaning page

Use the cleaning page to keep the fuser free of toner and paper particles that can sometimes accumulate. Accumulation of toner and particles can cause specks to appear on the front or back side of print jobs.

HP recommends that you use the cleaning page when there is a print quality issue.

A **CLEANING** message appears on the product control panel display while the cleaning is taking place.

In order for the cleaning page to work correctly, print the page on copier-grade paper (not bond, heavy, or rough paper). A blank page will be printed when the task is complete. Discard the page.

Create and process a cleaning page

1. Press Menu.
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press OK.
3. Press the down arrow ▼ to highlight **PRINT QUALITY**, and then press OK.

> **NOTE:** If your product has an automatic duplexer, go to step 7.

4. Press the down arrow ▼ to highlight **CREATE CLEANING PAGE**, and then press OK.
5. Remove all paper from Tray 1.
6. Remove the cleaning page from the output bin, and load it face-down in Tray 1.

> **NOTE:** If you are not in the menus, navigate to **PRINT QUALITY** by using the previous instructions.

7. At the product control panel, press the down arrow ▼ to highlight **PROCESS CLEANING PAGE**, and then press OK.

You can set the product to clean the paper path automatically after the product has printed a certain number of pages. Products in dirtier environments can be cleaned more frequently by choosing one of the lower page count settings.

Clean the paper path automatically

1. Press Menu.
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press OK.
3. Press the down arrow ▼ to highlight **PRINT QUALITY**, and then press OK.
4. Press the down arrow ▼ to highlight **AUTO CLEANING**, and then press OK.
5. Press the down arrow ▼ to highlight **ON**, and then press OK.
6. Press the down arrow ▼ to highlight **CLEANING INTERVAL**, and then press OK.

> **NOTE:** If you are not in the menus, navigate to **PRINT QUALITY** by using the previous instructions.

7. Press the down arrow ▼ to highlight the correct page count interval, and then press OK.

Control-panel messages

Table 7-8 Control-panel messages

Control panel message	Description	Recommended action
10.10.00 SUPPLY MEMORY ERROR	The product has experienced a print cartridge error.	1. Ensure that the cartridge is a genuine HP print cartridge. 2. Verify the connector at J74 on the DC controller PCA is securely connected. 3. Replace the print cartridge.
10.94.YY REMOVE SHIPPING LOCKS FROM CARTRIDGE <AREA> **For help press ?**	At least one shipping lock is installed.	1. Open the top cover. 2. Pull the tape and then remove the print cartridge. 3. Remove the orange tabs from the print cartridge. 4. Remove the plastic insert and foam from the print cartridge area. 5. Reinsert the print cartridge and then close the top cover.
10.XX.YY SUPPLY MEMORY ERROR **For help press ?**	An error has occurred in one or more of the product's supplies. Values of XX and YY are listed below: XX00 = memory is defective XX01 = memory is missing YY00 = cartridge	• Turn the product off and then on to clear the message. • Replace the print cartridge.
11.XX INTERNAL CLOCK ERROR **To continue press OK**	The real time clock has experienced an error.	1. Power cycle the product to see if the message clears. 2. If possible, print a configuration page to record product information, and then perform an NVRAM initialization routine. If the initialization routine is successful, you will need to re-enter several configuration parameters (such as the page count and the serial number). 3. If the error persists, replace the formatter PCA.
13.01.00 Jam in Tray 1	The Tray 1 pickup roller or solenoid might not be working correctly.	1. Load paper in Tray 1, and then use the paper path test to pull paper. Verify that the roller rotates. 2. If someone has performed maintenance on the product recently, verify that the Tray 1 pickup roller, feed roller, and separation roller have been installed correctly. 3. From the **DIAGNOSTICS** menu, run the multipurpose tray (Tray 1) solenoid component test to verify that the solenoid moves when energized. Listen

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
		for an audible “click” when the test is initiated. If the solenoid is not being energized, verify that the solenoid connector is attached to connector J71 on the DC controller PCA. 4. If the error persists, replace the Tray 1 solenoid (SL102).
13.03.00 Jam in Tray 2	The paper path might have an obstruction, or the Tray 2 solenoid might not be working correctly.	1. Inspect the paper path and ensure no obstacles are blocking the paper path. 2. If maintenance has recently be performed, verify that the pickup, feed, and separation rollers have been reinstalled correctly. 3. From the **DIAGNOSTICS** menu, run the Tray 2 pickup solenoid component test to verify that the solenoid moves when energized. Listen for an audible “click” when the test is initiated. If the solenoid is not being energized, verify that the solenoid connector is attached to connector J72 on the DC controller PCA. 4. If the error persists, replace the Tray 2 pickup solenoid (SL101).
13.03.00 JAM IN TRAY X	A jam has occurred in the specified location. This jam occurs when the product cannot move paper from the specified tray into the paper path.	1. Inspect the paper path and remove any obstructions. 2. Verify that the tray is not loaded incorrectly or overfilled. 3. For Trays 3, 4, 5, or 6, verify that the trays are stacked correctly. 4. Verify that the media meets HP media specifications. 5. If maintenance has recently be performed, verify that the pickup, feed, and separation rollers have been reinstalled correctly. 6. Verify that connector J77 on the DC controller PCA is firmly seated. 7. From the **DIAGNOSTICS** menu, run the feed roller clutch (CL101) component test. 8. If the tray pickup motor rotates, yet the drive gears directly below the motor (on the Tray 2 pickup assembly) do not rotate, the clutch is not functioning properly. Replace the feed roller assembly.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
13.20.00 JAM INSIDE <LOCATION>	Paper has not moved past a certain paper sensor. <LOCATION> can be one of the following locations. • **TRAY 2** • **TOP COVER** • **REAR DOOR** • **DUPLEXER**	• **TRAY 2** Remove the tray, and then check the paper path for obstructions. Perform a manual sensor test and observe the pre-feed sensor (PS102) status (**B**). Toggle the sensor flag to determine if the status changes. • **TOP COVER** Remove the print cartridge, and then check the paper path for obstructions. Verify that the top-of-page sensor (PS103) and the media width sensors (PS106 and PS108) are unblocked. Perform a manual sensor test and observe the status of these sensors. Toggle the sensor flags to determine if their status changes. • **REAR DOOR** Open or remove the rear face-up bin, and then check the paper path on each side of the fusing assembly for obstructions. Remove the fuser, if necessary. Perform a manual sensor test and observe the fuser delivery sensor (PS700) status (**C**). Toggle the sensor flag to determine if the status changes. • **DUPLEXER** Remove the duplexer, and then check the paper path for obstructions. If the message persists, replace the duplexer.
13.JJ.NT DEVICE WARNING	The external device sent a warning.	No action is necessary.
13.JJ.NT JAM IN <LOCATION>	A jam has occurred in the specified location.	Remove jammed paper from the specified location. If the message persists after all jams have been cleared, a sensor might be stuck or broken. Contact an HP-authorized service or support provider.
13.JJ.NT JAM INSIDE <LOCATION>	A jam has occurred in the specified location.	Remove jammed paper from the specified location. If the message persists after all jams have been cleared, a sensor might be stuck or broken. Contact an HP-authorized service or support provider.
13.JJ.NT PAPER JAM OPEN INPUT TRAYS alternates with **Open all trays**	A jam has occurred in an input tray.	1. Open the top cover. 2. Remove the print cartridge and any paper.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
		3. Reinstall the print cartridge and close the top cover. 4. Close all trays.
21 PAGE TOO COMPLEX **For help press ?** alternates with **21 PAGE TOO COMPLEX** **To continue press OK**	The data (dense text, rules, raster or vector graphics) sent to the product was too complex.	• Press OK to print the transferred data (some data might be lost). • If this message appears often, simplify the print job or install additional memory.
22 EIO X BUFFER OVERFLOW **To continue press OK**	Too much data was sent to the EIO card in the specified slot [X]. An improper communications protocol might be in use. Note: EIO 0 is reserved for the HP Jetdirect embedded print server.	• Press OK to clear the message. (The job will not be printed.) • Check the host configuration. If the message persists, contact an HP-authorized service or support provider.
22 EMBEDDED I/O BUFFER OVERFLOW **To continue press OK**	Too much data was sent to the product's internal HP Jetdirect.	Press OK to continue printing. Some data may be lost.
22 USB I/O BUFFER OVERFLOW **To continue press OK**	Too much data was sent to the USB port.	Press OK to clear the error message. (The job will not be printed.)
40 EIO X BAD TRANSMISSION **To continue press OK**	The connection has been broken between the product and the EIO card in the specified slot [X]. Note: EIO 0 is reserved for the HP Jetdirect embedded print server.	Press OK to clear the error message and continue printing.
40 EMBEDDED I/O BAD TRANSMISSION **To continue press OK**	The connection has been broken between the product and HP Jetdirect print server.	1. Print the configuration and Embedded JetDirect pages to verify that the card status is “Ready,” and that the protocol reads “Ready.” 2. Verify that all the configuration parameters (IP address, configuration method, and domain) are correct. 3. Verify that you are using a working network cable. 4. Verify you can “ping” a network address from the product. 5. Verify that the HP JetDirect print server has the latest firmware. HP JetDirect firmware is part of the product firmware. Find the latest product firmware at www.hp.com.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
41.X ERROR **For help press ?** alternates with **41.X ERROR** **To continue press OK**	A temporary printing error occurred.	1. Press OK to see if the page will print. If necessary, turn the product off and then on. 2. Verify that the loaded paper meets HP specifications. If pages stick together, the paper detect sensors will detect a sheet of paper longer than what is expected in the product. 3. Verify that all paper size settings on the control panel, in the print driver settings, and in the software program match. 4. Verify that the correct size paper is loaded in the input tray.
49.XXXX ERROR **To continue turn off then on**	A critical firmware error has occurred that caused the processor on the formatter to cease operation. This error can be caused by invalid print commands, corrupt data, or invalid operations. In some cases, electrical “noise” in the cable can corrupt data during transmission to the product. Other causes can be poor-quality cables, poor connections, or home-grown programs. On rare occasions, the formatter is at fault.	1. Turn off the product, and then turn it on. 2. Press Stop to clear the print job from the product memory. 3. Turn off the product, and then turn it on. 4. Print a document from a different software program. If the job prints, return to the first program and try to print a different file. If the message appears only with a certain software program or print job, contact the software program vendor for assistance. 5. If the message persists with different software programs and print jobs, disconnect all of the cables to the product that connect it to the network or computer. 6. Turn off the product. 7. Remove all EIO devices from the product. 8. Turn on the product. 9. If the error no longer exists, replace each EIO device one at a time, making sure to turn the product off and on again as you install each device. 10. Replace an EIO device if you determine that it causes the error.
50.X FUSER ERROR **For help press ?**	A fuser error has occurred. The values for X are listed below. • **50.1**: Low fuser temperature • **50.2**: Fuser warm-up service • **50.3**: High fuser temperature • **50.4**: Faulty fuser	1. Power cycle the product to determine if the error is persistent. 2. Verify that the correct fuser model is installed in the product. 3. Verify that the correct voltage fuser is installed in the product. 4. Verify that the fusing assembly is firmly seated in the product chassis. Reseat

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
	• **50.5**: Inconsistent fuser (verify voltage model) • **50.6**: Open fuser • **50.7**: Pressure release mechanism failure • **50.8**: Lower fuser temperature • **50.9**: High fuser temperature	the fusing the assembly, and listen for a “click” at the end of the assembly when you insert it into the product. 5. Verify that the connection to connector J82 on the DC controller PCA is firmly seated. 6. Inspect the fusing assembly connectors, at the front of the assembly, and the connectors on the high-voltage power supply PCA. Look for bent pins or debris. Clean or straighten the pins if necessary. 7. If the error persists, replace the fusing assembly. 8. If the error still persists, replace the high-voltage power supply.
51.XY ERROR **To continue turn off then on**	A laser/scanner error has occurred.	1. From the **DIAGNOSTICS** menu, run the laser/scanner motor component test. Verify that you can hear motor rotate. 2. If you cannot hear the motor rotate, verify that the connections to connector J86 and connector J93 on the DC controller PCA are firmly seated. 3. Verify that the wiring harness at the laser/scanner assembly is securely attached. 4. If the error persists, replace the laser/scanner assembly.
53.XY.ZZ CHECK RAM DIMM SLOT <X>	There is a problem with the product memory. The DIMM that caused the error will not be used. Values of X and Y are as follows: • X = DIMM type, 0 = ROM, 1 = RAM • Y = DIMM location, 0 = Internal memory (ROM or RAM), 1 = DIMM slot 1	Press OK to continue if you are prompted. If the message continues, you might need to replace the specified DIMM. Turn the product off, and then replace the DIMM that caused the error.
54.XX ERROR **To continue turn off then on**	This message is typically related to a sensor issue.	Turn the product off and then on. Follow the instructions displayed on the product control panel.
55.XX.YY DC CONTROLLER ERROR **For help press ?** alternates with **55.XX.YY DC CONTROLLER ERROR** **To continue turn off then on**	A temporary printing error occurred.	1. Turn the product off and then on. 2. Remove any third-party memory or USB device, and then turn the product off and then on. 3. Remove and then reinstall the formatter. 4. If the error persists, remove the formatter and perform an engine test. If the engine test page fails to print,

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
		replace the DC controller. If the engine test page prints, replace the formatter.
56.XX ERROR **For help press ?** alternates with **56.XX ERROR** **To continue turn off then on**	A temporary printing error occurred as a result of an incorrect input or output request.	• Turn the product off and then on. • If the message persists, contact an HP-authorized service or support provider.
57.01 ERROR **To continue turn off then on**	Fan FN103 has experienced an error.	1. Inspect fan FN103 to determine if its rotational movement is being obstructed. 2. Verify that the fan connection at connector J79 on the DC controller PCA is securely seated. 3. If the error persists, replace the fan.
57.03 ERROR **To continue turn off then on**	Fan FN102 has experienced an error.	1. Inspect fan FN102 to determine if its rotational movement is being obstructed. 2. Verify that the fan connection at connector J75 on the DC controller PCA is securely seated. 3. If the error persists, replace the fan.
57.04 ERROR **To continue turn off then on**	Fan FN101 has experienced an error.	1. Inspect fan FN101 to determine if its rotational movement is being obstructed. 2. Verify that the fan connection at connector J64 on the power supply PCA is securely seated. 3. If the error persists, replace the fan.
57.05 ERROR **To continue turn off then on**	The duplexer fan has experienced an error.	1. Inspect the fan to determine if its rotational movement is being obstructed. 2. If the error persists, replace the duplexer.
57.07 ERROR **To continue turn off then on**	Fan FN301 has experienced an error.	1. Inspect fan FN301 to determine if its rotational movement is being obstructed. 2. Verify that the fan connection at connector J65 on the power supply PCA is securely seated. 3. If the error persists, replace the fan.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
58.XX ERROR **To continue turn off then on**	The environmental sensor (TH3) has experienced an error.	1. Verify that the environmental sensor connection at connector J63 on the high-voltage power supply PCA is securely seated. 2. If the error persists, replace the environmental sensor (TH3).
59.XY ERROR **For help press ?** alternates with **59.XY ERROR** **To continue turn off then on**	A temporary printing error occurred.	1. Inspect the DC controller PCA and verify that the following connectors are firmly seated: ◦ Drum motor (M102) to connector J87 ◦ Feed motor (M101) to connector J91 ◦ Fusing motor (M299) to connector J89 **NOTE:** There is a cable between the drum motor and the DC controller. Both ends of the cable need to be firmly seated. 2. If the error persists, from the **DIAGNOSTICS** menu, run the component tests for each motor to verify that they are operating. If any of the motors is not operating, replace the motor.
60.XX ERROR	An error has occurred while the product was attempting to lift the tray designated by **XX**.	1. Open the tray, and then remove the paper. 2. Open the guides and look for any torn pieces of paper or foreign objects inside the tray. 3. Replace the paper, and then close the tray. 4. Turn the product off and then on. 5. Remove most of the paper from the tray except for a few sheets, and insert the tray into the product. Listen for the sound of the lift motor lifting the paper stack. Also, observe if the paper level indicator moves at the front of the tray. 6. **Tray 2 only**: If the paper stack in the tray is not being lifted, verify that the lift motor connector is firmly seated in connector J73 on the DC controller PCA. 7. If the error persists, replace the lift motor.
62 NO SYSTEM **To continue turn off then on**	This message indicates that no system was found. The product software system is corrupt.	• Turn the product off and then on. • If the message persists, contact an HP-authorized service or support provider.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
65.XY.ZZ OUTPUT DEVICE DISCONNECTED **For help press ?**	An output device was removed while the product was turned on.	To continue printing, you must do one of the following: • Reconnect the output device. • Turn the product off and then on. If the message persists, replace the output device.
66.XY.ZZ INPUT DEVICE ERROR **66.XY.ZZ INPUT DEVICE FAILURE** **66.XY.ZZ OUTPUT DEVICE ERROR** **66.XY.ZZ OUTPUT DEVICE FAILURE**	The product has detected a problem with an input or output device, depending on the specific error message.	1. Turn the product off and then on. 2. Reconnect the device. 3. If possible, print the configuration page to determine if the product is recognizing the device. 4. Verify that the following DC controller connections are seated firmly in the connectors. ◦ J83: envelope feeder ◦ J88: 500-sheet tray feeder or 1,500-sheet tray feeder ◦ J90: stacker, stapler-stacker, or mailbox ◦ J84: duplexer 5. If the message persists, replace the input or output device.
66.XY.ZZ SERVICE ERROR **For help press ?** alternates with **66.XY.ZZ SERVICE ERROR** **Check cables and turn off then on**	The external paper-handling controller has detected a problem.	Check the cables, and then turn the product off and then on.
68.X PERMANENT STORAGE FULL **For help press ?** alternates with **68.X PERMANENT STORAGE FULL** **To continue press OK**	The permanent storage is full. Some settings might have been reset to the factory defaults.	• If the error does not clear, turn the product off and then on. • Print a configuration page and check the product settings to determine which values have changed.
68.X PERMANENT STORAGE WRITE FAIL **To continue press OK**	The storage device is failing to write. Printing can continue, but there might be some unexpected behaviors because an error occurred in permanent storage.	Press OK to continue. If the error does not clear, turn the product off then on. If the message persists, contact an HP-authorized service or support provider.
68.X STORAGE ERROR SETTINGS CHANGED **For help press ?**	An error occurred in the product permanent storage and one or more product settings has been reset to its factory default.	Press OK to resume printing.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
alternates with **68.X STORAGE ERROR SETTINGS CHANGED** **To continue press OK**		Print a configuration page and check the product settings to determine which values have changed. If the error does not clear, turn the product off and then on. If the message persists, contact an HP-authorized service or support provider.
69.X ERROR **For help press ?** alternates with **69.X ERROR** **To continue press OK**	A printing error occurred.	• Turn the product off and then on. • If the message persists, contact an HP-authorized service or support provider.
79.XXXX ERROR **To continue turn off then on**	The product detected a critical hardware error.	• Press the stop button ⊗ to clear the print job from the product memory. Turn the product off and then on. • Try printing a job from a different program. If the job prints, go back to the first program and try printing a different file. If the message appears only with a certain program or print job, contact the software vendor for assistance. If the message persists with different programs and print jobs, try these steps. • Turn the product off. • Disconnect all cables to the product that connect it to the network or computer. • Remove all the memory DIMMs or third-party DIMMs from the product. Then reinstall the memory DIMM. • Remove the EIO device from the product. • Turn the product on. If the error no longer exists, follow these steps. • Install the DIMM and EIO device one at a time, making sure to turn the product off and then on as you install each device. • Replace the DIMM or EIO device if you determine that it causes the error. • Reconnect all cables that connect the product to the network or computer.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
8X.YYYY EIO ERROR	The EIO accessory card in slot [X] has encountered a critical error.	• Turn the product off and then on. • Turn the product off, reseat the EIO accessory in slot [X], and then turn the product on. • Turn the product off, remove the EIO accessory from slot [X], install it in a different EIO slot, and then turn the product on. • Replace the EIO accessory in slot [X].
8X.YYYY EMBEDDED JETDIRECT ERROR	The embedded HP Jetdirect print server has encountered a critical error.	• Turn the product off and then on. • If the message persists, contact an HP-authorized service or support provider.
Access denied **MENUS LOCKED**	The product control-panel function you are trying to use has been locked to prevent unauthorized access.	See your network administrator.
ACTION NOT CURRENTLY AVAILABLE FOR TRAY X **Tray size cannot be ANY SIZE/ANY CUSTOM**	Duplexing is not available when the tray size is set to **ANY SIZE** or **ANY CUSTOM**.	Change tray settings. 1. Press Menu. 2. Press the down arrow ▼ to highlight **PAPER HANDLING**, and then press OK. 3. Press the down arrow ▼ to highlight the specified tray, and then press OK. 4. Change the selected tray's size and type settings.
BAD DUPLEXER CONNECTION **For help press ?**	The optional duplexer is not properly connected to the product.	• Make sure that you are using the right-angle power cord that came with the product. • Try removing and reinstalling the optional duplexer. Then turn the product off and then on.
BAD ENVELOPE FEEDER CONNECTION	The optional envelope feeder is not connected properly to the product.	Try removing and reinstalling the optional envelope feeder. Then, turn the product off and then on.
BAD OPTIONAL TRAY CONNECTION	An optional tray is not connected correctly.	Remove the product from the tray, and reinstall it. Then, turn the product off and then on.
Canceling...	The product is canceling a job. The message continues while the job is stopped, the paper path is cleared, and any remaining incoming data on the active data channel is received and discarded.	No action is necessary.
CANNOT DUPLEX CLOSE REAR DOOR **For help press ?**	The rear door must be closed to duplex.	Close the rear door.
Checking paper path	The product is checking for possible jams or paper that was not cleared from the product.	No action is necessary.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
Checking printer	The product is checking for possible jams or paper that was not cleared from the product.	No action is necessary.
CHOSEN PERSONALITY NOT AVAILABLE **To continue press OK**	The product received a request for a personality (product language) that does not exist. The print job is canceled.	Print the job using a printer driver for a different product language, or add the requested language to the product (if available). To see a list of available personalities, print a configuration page.
CLEANING DISK <X> % COMPLETE **Do not power off** alternates with **CLEANING DISK <X> % COMPLETE** **For help press ?**	The storage device is being sanitized or cleaned. Do not turn off. Product functions are unavailable. The product automatically turns off then on when finished.	No action is necessary.
CLEANING PAGE ERROR **Open rear bin**	You have attempted to create or process a cleaning page when a duplexer is present and the rear door is closed.	Open the rear output bin to begin creating or processing the cleaning page.
Cleaning...	The product is performing an automatic cleaning.	Not action is necessary.
Clearing event log	The product is clearing the event log.	No action is necessary.
Clearing paper path	The product jammed or was turned on and paper was detected in a wrong location. The product is automatically attempting to eject the pages.	Wait for the product to finish trying to clear the pages. If it cannot, a jam message will appear on the control panel display.
CLOSE TOP COVER	The top cover open switch is signaling that the cover is open.	1. Inspect the top cover open switch (SW101) to determine if the switch is correctly installed. 2. Verify that the connection to connector J78 on the DC controller PCA is firmly seated. 3. From the **DIAGNOSTICS** menu, run the manual sensor test and see if the component “L” status changes when the top cover is opened and closed. 4. If the status does not change, replace the switch (SW101).
CODE CRC ERROR SEND FULL RFU ON <X> PORT	An error occurred during a firmware upgrade.	Contact an HP-authorized service or support provider.
CORRUPT FIRMWARE IN EXTERNAL ACCESSORY **For help press ?**	The product detected corrupt firmware in an input or output accessory.	Printing can continue, but jams might occur. To view instructions for upgrading the firmware and to download the firmware upgrade, see Upgrade the firmware on page 96.
DATA RECEIVED **To print last page press OK** alternates with	The product is waiting for the command to print (such as waiting for a form feed, or when the print job is paused).	Press OK to continue.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
<current status message>		
DATE/TIME=YYYY/MMMM/DD HH:MM **Press OK to continue** **To skip press ⊗.**	The current date and time.	Set the date and time or press the stop button ⊗ to skip.
Deleting...	Product is deleting a stored job.	No action is necessary.
DUPLEXER ERROR REMOVE DUPLEXER **Install duplexer with power off**	The optional duplexer has an error.	Turn off the product and reattach the optional duplexer. (Any print jobs at the product might be lost.)
EIO <X> DISK NOT FUNCTIONAL **For help press ?**	The EIO disk in slot X is not working correctly.	• Turn the product off. • Make sure the EIO disk is inserted correctly and securely fastened. • If the control panel message continues to appear, the optional hard disk needs to be replaced.
EIO <X> DISK SPINNING UP alternates with **<Current status message>**	The disk accessory in EIO slot [X] is initializing.	No action is necessary.
EIO DEVICE FAILURE **To clear press OK**	The specified device has failed.	Press OK to continue.
EIO FILE OPERATION FAILED **To clear press OK**	A command attempted an illogical operation.	Press OK to continue.
EIO FILE SYSTEM IS FULL **To clear press OK**	The specified file system is full and cannot be written to.	Press OK to continue.
EIO IS WRITE PROTECTED **To clear press OK**	The file system cannot be written to.	Press OK to continue.
Envelope Feeder [Type] [Size] **To change size or type press OK** alternates with **TRAY <XX> [TYPE] [SIZE]** **For help press ?**	Current size and type of tray.	To accept the size and type, press the back arrow ⮌. To change settings, press OK.
ENVELOPE FEEDER EMPTY alternates with **<Current status message>**	The envelope feeder is empty.	Load envelopes in the envelope feeder.
Event log empty	You are attempting to view an empty event log by selecting **SHOW EVENT LOG** from the control panel.	No action is necessary.
Incorrect	The wrong PIN number was entered.	Reenter PIN number.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
INFLATE FAILURE SEND FULL RFU ON <X> PORT	An error occurred during a firmware upgrade.	Contact an HP-authorized service or support provider.
Initializing	Individual tasks are being initialized.	No action is necessary.
INSERT OR CLOSE TRAY <XX> **For help press ?**	The specified tray is open or missing.	Insert or close the tray for printing to continue.
INSTALL BLACK CARTRIDGE **For help press ?**	The print cartridge is missing and must be reinstalled for printing to continue.	1. Open the top cover. 2. Install the cartridge. 3. Close the top cover.
INSUFFICIENT MEMORY TO LOAD FONTS/DATA **For help press ?** alternates with **<DEVICE>** **To continue press OK**	The product received more data than can fit in its available memory. You might have tried to transfer too many macros, soft fonts, or complex graphics.	Press OK to print the transferred data (some data might be lost). To solve this problem, simplify the print job or install additional memory.
INTERNAL DISK CANNOT BE WRITTEN TO **To clear press OK**	The device cannot be written to.	Press OK to continue.
INTERNAL DISK DEVICE FAILURE **To clear press OK**	The specified device has failed.	Press OK to continue.
INTERNAL DISK FILE OPERATION FAILED **To clear press OK**	A command attempted an illogical operation.	Press OK to continue.
INTERNAL DISK FILE SYSTEM IS FULL **To clear press OK**	The specified file system is full and cannot be written to.	Press OK to continue.
INTERNAL DISK NOT FUNCTIONAL	The internal disk is not working correctly.	Contact an HP-authorized service or support provider.
INTERNAL DISK SPINNING UP alternates with **<Current status message>**	The internal disk is spinning up its platter. Jobs that require disk access must wait.	No action is necessary.
LOAD ENVELOPE FEEDER [TYPE] [SIZE] **For help press ?**	The envelope feeder is empty.	Load the envelope feeder. If paper is already in the envelope feeder, press OK to print. To use another tray, remove paper from the envelope feeder, and then press OK to continue.
LOAD ENVELOPE FEEDER [TYPE] [SIZE] **To use another tray press OK**	The envelope feeder is empty.	Load the envelope feeder. If paper is already in the envelope feeder, press OK to print.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
alternates with **LOAD ENVELOPE FEEDER [TYPE] [SIZE]** **For help press ?**		To use another tray, remove paper from the envelope feeder, and then press OK to print.
LOAD TRAY 1 [TYPE] [SIZE] **To continue press OK** alternates with **LOAD TRAY 1 [TYPE] [SIZE]** **For help press ?**	Tray 1 is empty.	Load Tray 1 with the requested paper. If the paper is already in the Tray 1, press the help button **?**, and then press OK to print. To use another tray, remove paper from Tray 1, and then press OK to continue.
LOAD TRAY 1 [TYPE] [SIZE] **To use another tray press OK** alternates with **LOAD TRAY 1 [TYPE] [SIZE]** **For help press ?**	Tray 1 is empty and other trays are available.	Press OK to use another tray. To use Tray 1, load it with the requested paper. If the paper is already in the Tray 1, press the help button **?**, and then press OK to print. To use another tray, remove paper from Tray 1, and then press OK to use another tray.
LOAD TRAY <XX> [TYPE] [SIZE] **For help press ?**	The indicated tray is configured for a specific type and size of paper needed by a print job, but the tray is empty. All other trays are also empty.	Load the requested paper in the tray that is indicated.
LOAD TRAY <XX> [TYPE] [SIZE] **To use another tray press OK** alternates with **LOAD TRAY <XX> [TYPE] [SIZE]** **For help press ?**	A job is sent that requires a specific type and size that is not available in the tray that is indicated.	Press OK to use a type and size that are available in another tray.
LOWER THE <BINNAME> **For help press ?**	The optional bin is in the up position.	Lower the bin.
MANUALLY FEED [TYPE] [SIZE]	The product is waiting for paper to be loaded in Tray 1 for manual feed.	If paper is already in the Tray 1, press the help button **?**, and then press OK to print. To use another tray, remove paper from Tray 1, and then press OK.
MANUALLY FEED [TYPE] [SIZE] **To continue press OK** alternates with **MANUALLY FEED [TYPE] [SIZE]** **For help press ?**	The product is waiting for paper to be loaded in Tray 1 for manual feed.	Load the requested paper into Tray 1 and press OK.
MANUALLY FEED [TYPE] [SIZE] **To use another tray press OK**	The product is waiting for paper to be loaded in Tray 1 for manual feed.	Press OK to use a type and size that are available in another tray.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
alternates with **MANUALLY FEED [TYPE] [SIZE]** **For help press ?**		
MANUALLY FEED OUTPUT STACK **Then press OK to print second sides**	The first side of a manual duplex job has been printed and the product is waiting for you to insert the output stack to complete the second side.	• Load the output stack into Tray 1, maintaining the same orientation with printed side down. • To continue printing, press OK.
No job to cancel	The stop button ⊗ was pressed, but there is no active job or buffered data to cancel. The message is displayed for approximately 2 seconds before the product returns to the ready state.	No action is necessary.
NON HP SUPPLY INSTALLED **Economode disabled**	The product has detected that the print cartridge is not a genuine HP supply.	If you believe you purchased a genuine HP supply, call the HP fraud hotline Any product repair required as a result of using non-HP supplies or unauthorized supplies is not covered under the product warranty. To continue printing, press OK.
NON HP SUPPLY INSTALLED alternates with **For help press ?**	The product has detected that the print cartridge is not a genuine HP supply.	If you believe you purchased a genuine HP supply, call the HP fraud hotline. Any product repair required as a result of using non-HP supplies or unauthorized supplies is not covered under the product warranty. To continue printing, press OK.
Output bin FULL **Remove all paper from bin**	The output bin is full, and printing cannot continue.	Empty the bin so that the current print job can finish.
Output bin FULL **Remove all paper from bin** alternates with **<Current status message>**	The output bin is full, but it is not needed for the current print job.	Empty the bin before sending a job to that bin.
PAPER WRAPPED AROUND FUSER **For help press ?**	A jam has occurred because paper has wrapped around the fuser.	**CAUTION:** The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it. 1. Turn the product off. 2. Remove the rear output bin. 3. Press the blue tabs to remove the fuser. 4. Remove the jammed paper.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
		5. Reinstall the fuser and the rear output bin. 6. Turn the product on.
PERFORM PRINTER MAINTENANCE **For help press ?** alternates with **<Current status message>**	The product is due for regular maintenance.	Contact your service representative to schedule maintenance. Continue printing until maintenance is performed.
Performing upgrade	Firmware is being upgraded.	No action is necessary.
Please wait	The product is going offline.	No action is necessary.
Printing...ENGINE TEST	The product is printing an engine test page.	No action is necessary.
RAM DISK DEVICE FAILURE **To clear press OK**	The specified device has failed.	Press OK to continue.
RAM DISK FILE SYSTEM IS FULL **To clear press OK**	The specified file system is full and cannot be written to.	Press OK to continue.
RAM DISK IS WRITE PROTECTED **To clear press OK**	The device cannot be written to.	Press OK to continue.
RAM DISK OPERATION FAILED **To clear press OK**	A command attempted an illogical operation.	Press OK to continue.
REINSERT DUPLEXER	The duplexer has been removed.	Reinsert the duplexer.
REPLACE BLACK CARTRIDGE **For help press ?**	The print cartridge has reached the end of life.	Replace the cartridge.
REPLACE BLACK CARTRIDGE **For help press ?** alternates with **REPLACE BLACK CARTRIDGE** **To continue press OK**	The cartridge has reached the low threshold.	Order a new cartridge. To continue printing press OK.
REPLACE STAPLE CARTRIDGE **To continue press OK**	The stapler is out of staples.	Press OK to continue without stapling.
REPLACE STAPLES **To continue press OK**	The stapler is out of staples.	Press OK to continue without stapling.
Request accepted please wait	The request to print an internal page is waiting to print.	Wait for the current job to finishing printing.
Restoring factory settings	Factory settings are being restored.	No action is necessary.
Restoring...	The specific settings are being restored.	No action is necessary.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
RFU LOAD ERROR SEND FULL RFU ON <X> PORT	An error occurred during a firmware upgrade.	Contact an HP-authorized service or support provider.
ROM DISK DEVICE FAILURE **To clear press OK**	The specified device has failed.	Press OK to continue.
ROM DISK FILE OPERATION FAILED **To clear press OK**	A command attempted an illogical operation.	Press OK to continue.
ROM DISK FILE SYSTEM IS FULL **To clear press OK**	The specified file system is full and cannot be written to.	Press OK to continue.
ROM DISK IS WRITE PROTECTED **To clear press OK**	The device cannot be written to.	Press OK to continue.
SANITIZING DISK <X>% COMPLETE **Do not power off** alternates with **CLEANING DISK <X>% COMPLETE** **For help press ?**	A hard disk is being sanitized.	No action is necessary.
SIZE MISMATCH IN TRAY <XX> **For help press ?** alternates with **Current status message**	The tray indicated is loaded with a different size of paper than the size configured for the tray.	Load the tray with the size configured for the tray. Make sure that the guides are positioned correctly in the specified tray. Printing can continue from other trays.
Sleep mode on	The product is in Sleep mode.	No action is necessary.
STANDARD TOP BIN FULL	The output bin full sensor is signaling that the bin is full.	1. The sensor flag is connected to the top cover assembly. Verify that the top cover is correctly installed. Verify that the flag is not hindered and moves freely. 2. From the **DIAGNOSTICS** menu, run the manual sensor test. Toggle the tray full flag and see if reference “K” changes. If the flag moves freely, but the flag status does not change during testing, verify that connector J76 on the DC controller PCA is firmly seated. 3. If the error persists, replace the sensor (PS104).
STAPLER LOW ON STAPLES **For help press ?** alternates with **READY** **To enter menus, press OK**	Fewer than 70 staples remain in the optional stapler/stacker cartridge. Printing continues until the cartridge runs out of staples.	Replace the staple cartridge. For information about replacing the staple cartridge, see Load staples on page 82.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
SUPPORTED HOST USB DEVICE DETECTED BUT INACCESSIBLE **For help press ?**	A USB device has been detected. The product does not support plug and play operation.	Turn the product off and then on, but do not unplug the USB device.
TOO MANY PAGES IN JOB TO FINISH **For help press ?**	The finishing device received too many pages to perform finishing. Pages will eject without finishing.	Reduce the number of pages.
TOO MANY PAGES IN JOB TO STAPLE **For help press ?**	The maximum number of sheets the stapler can staple is 15. The print job finishes printing but is not stapled.	For print jobs that have more than 15 pages, staple them manually.
TOO MANY PAGES TO BIND **For help press ?**	Too many pages were sent with the job. Binding cannot be completed.	Reduce the number of pages.
TOO MANY TRAYS INSTALLED	You have installed more optional trays than the product supports. The product can accept up to four optional 500-sheet trays, or it can accept one optional 1,500-sheet tray and up to three optional 500-sheet trays, for a total of up to four optional trays.	Remove one of the optional trays.
TRAY <XX> [TYPE] [SIZE] **To change size or type press OK** alternates with **TRAY <XX> [TYPE] [SIZE]** **To accept settings press** ⮌	This message states the current type and size configuration of the paper tray, and allows you to change the configuration.	To change the paper size or type press OK while the message is present. To clear the message, press the back arrow ⮌ while the message is present. • Set size and type to **ANY** if the tray is used frequently for different sizes or types. • Set size and type to a specific setting if printing with only one type of paper.
TRAY <XX> OPEN **For help press ?** alternates with **<Current status message>**	The tray cannot feed paper to the product because tray [X] is open and must be closed for printing to continue.	Check the trays and close any that are open.
Unable to mopy job alternates with **Current status message**	Memory or file system failures would not allow a mopy job to occur. Only one copy will be produced.	Correct the error and then try again to store the job.
Unable to store job alternates with **<Current status message>**	The print job named cannot be stored due to a memory, disk, or configuration problem.	Correct the error and then try again to store the job.
UNSUPPORTED HOST USB DEVICE DETECTED	An unsupported USB device has been inserted into a USB port.	The product cannot use the USB device. Remove the device.
USB HUBS NOT FULLY SUPPORTED **For help press ?**	The product does not meet the power requirement of the USB hub.	Some operations may not work properly.

Table 7-8 Control-panel messages (continued)

Control panel message	Description	Recommended action
USB STORAGE DEVICE FAILURE **To clear press OK**	The specified device has failed.	Press OK to continue.
USB STORAGE FILE OPERATION FAILED **To clear press OK**	A command attempted an illogical operation.	Press OK to continue.
USB STORAGE FILE SYSTEM IS FULL **To clear press OK**	The specified file system is full and cannot be written to.	Press OK to continue.
USB STORAGE IS WRITE PROTECTED **To clear press OK**	The device cannot be written to.	Press OK to continue.
USE TRAY <XX> [TYPE] [SIZE] **To change press ▲/▼.** **To use press OK**	The product did not detect the type and size of paper requested. The message shows the most likely type and size available and the tray in which they are available.	Press OK to accept the values in the message, or press the up or down arrow ▲/▼ to scroll through the available choices.
Wait for printer to reinitialize	This message can appear for a variety of reasons: • The RAM DISK settings changed before the product restarted. • The product is restarting after changing external device modes. • You have exited the **DIAGNOSTICS** menu. • A new formatter has been installed with an old product, or a new product has been installed with an old formatter.	No action is necessary.
WAITING FOR TRAY <XX> TO LIFT alternates with **<Current status message>**	The specified tray is in the process of lifting the paper to the top of the tray for proper feeding.	No action is necessary.
WARMING UP alternates with **<Current status message>**	The product is coming out of sleep mode. Printing will continue as soon as it is done.	No action is necessary.

Event log messages

Print an event log

Use the event log to help diagnose and solve product problems.

1. Press Menu.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press OK.
3. Press the down arrow ▼ to highlight **PRINT EVENT LOG**, and then press OK to print the pages.

NOTE: For information about clearing the event log, see Service menu on page 337.

Show an event log

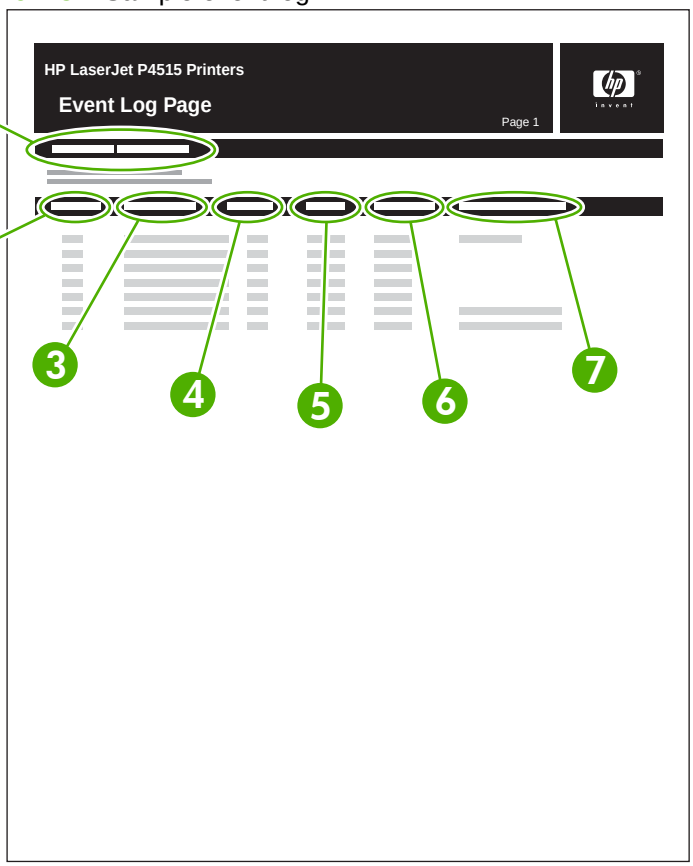
Use the control panel to view the event log.

1. Press Menu.
2. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press OK.
3. Press the down arrow ▼ to highlight **SHOW EVENT LOG**, and then press OK to print the pages.

NOTE: For information about clearing the event log, see Service menu on page 337.

Sample event log

Figure 7-32 Sample event log



1	Product information
2	Event number
3	Date and time
4	Engine cycles
5	Event log code
6	Firmware version number
7	Description or personality

Paper-handling problems

Jams

The product closely monitors the paper path for jams. The product displays a jam error message when one of the following conditions occurs.

- Paper is detected at a paper path sensor when paper is not expected.
- Paper fails to clear a sensor within a specified time period.
- Paper fails to arrive at a sensor within a specified time period.

If the product is experiencing frequent jams, use the following steps to assist you in resolving the causes of the jam.

- Review the event log to determine a cause for the jams.
- Inspect each of the paper path sensors to determine if the sensor flags are free from obstructions and functioning correctly. See Sensor test (interactive) on page 250.
- Use the manual sensor diagnostic test to determine if all paper path motors and solenoids are functioning correctly.
-

The sensors below monitor the product paper path.

- PS102, pre-feed sensor
- PS103, top-of-page sensor
- PS106, media-width sensor
- PS108, media-width sensor
- PS700, fusing delivery sensor
- PS1603, optional 500-sheet feeder media path sensors
- PS1502, duplex sensor
- PS1704, optional 1,500-sheet feeder media path sensors

NOTE: To locate the sensors listed above, see Figure 7-2 Paper sensors on page 249.

Common causes of jams

Many jams are caused by using paper that does not meet HP specifications. For complete paper specifications for all HP LaserJet products, see the *HP LaserJet Printer Family Print Media Guide*. This guide is available at www.hp.com/support/ljpaperguide.

The product is jammed.[1]

Cause	Solution
The paper does not meet specifications.	Use only paper that meets HP specifications. See Paper and print media on page 47.

The product is jammed.[1]

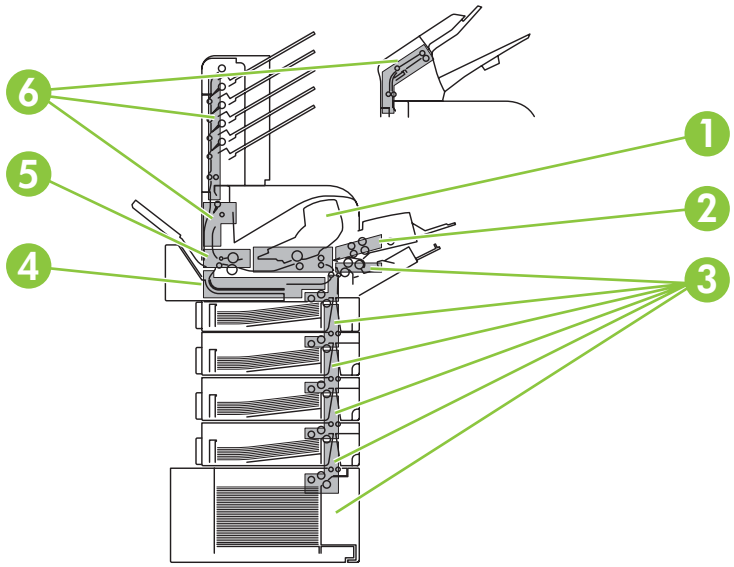
Cause	Solution
A component is installed incorrectly.	Verify that all print cartridges, the transfer unit, and the fuser are correctly installed.
You are using paper that has already passed through a product or copier.	Do not use paper that has been previously printed on or copied.
A tray is loaded incorrectly.	Remove any excess paper from the tray. Make sure that the stack is below the maximum stack height mark in the tray. See Load trays on page 54.
The paper is skewed.	The tray guides are not adjusted correctly. Adjust them so they hold the stack firmly in place without bending it.
The paper is binding or sticking together.	Remove the paper, flex it, rotate it 180°, or flip it over. Reload the paper into the tray. **NOTE:** Do not fan paper. Fanning can create static electricity, which can cause paper to stick together.
The paper is removed before it settles into the output bin.	Reset the product. Wait until the page completely settles in the output bin before removing it.
During two-sided printing, you removed the paper before the second side of the document was printed.	Reset the product and print the document again. Wait until the page completely settles in the output bin before removing it.
The paper is in poor condition.	Replace the paper.
The internal rollers from the tray are not picking up the paper.	Remove the top sheet of paper. If the paper is too heavy, it might not be picked from the tray.
The paper has rough or jagged edges.	Replace the paper.
The paper is perforated or embossed.	Perforated or embossed paper does not separate easily. Feed single sheets from Tray 1.
Product supply items have reached the end of their useful life.	Check the product control panel for messages prompting you to replace supplies, or print a supplies status page to verify the remaining life of the supplies. See Print the information and show-me-how pages on page 66.
Paper was not stored correctly.	Replace the paper in the trays. Paper should be stored in the original packaging in a controlled environment.

[1] If the product continues to jam, contact HP Customer Support or your authorized HP service provider.

Jam locations

If a jam message appears on the control-panel display, look for jammed paper or other print media in the locations that are indicated in the following illustration. Then follow the procedure for clearing the jam. You might need to look for paper in other locations than those that are indicated in the jam message. If the location of the jam is not obvious, look first in the top-cover area underneath the print cartridge.

When clearing jams, be very careful not to tear jammed paper. If a small piece of paper is left in the product, it could cause additional jams.



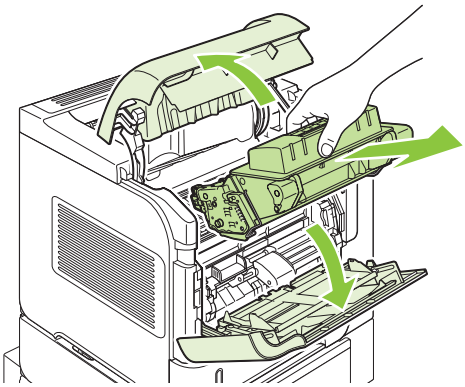
1	Top-cover and print-cartridge areas
2	Optional envelope feeder
3	Tray areas (Tray 1, Tray 2, and optional trays)
4	Optional duplexer
5	Fuser area
6	Output areas (top bin; rear bin; and optional stacker, stapler/stacker, or 5-bin mailbox)

NOTE: Loose toner might remain in the product after a jam and cause temporary print-quality problems. These problems should clear up within a few pages.

Clear jams

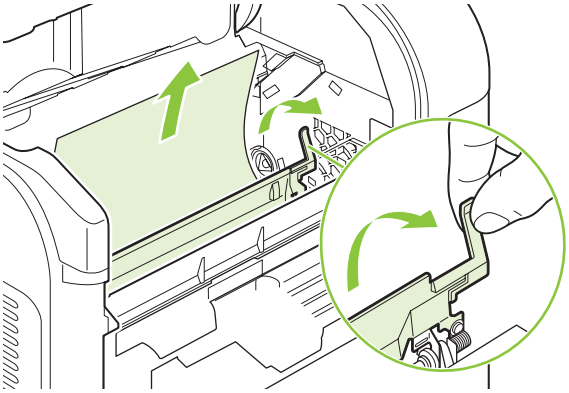
Clear jams from the top-cover and print-cartridge areas

1. Open the top cover and remove the print cartridge.

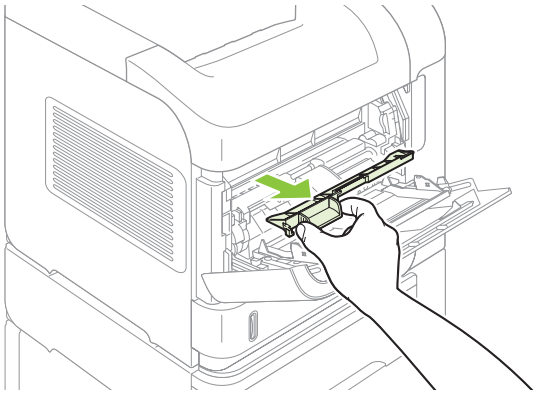


△ **CAUTION:** To prevent damage to the print cartridge, do not expose it to light for more than a few minutes. Cover the print cartridge with a sheet of paper while it is outside of the product.

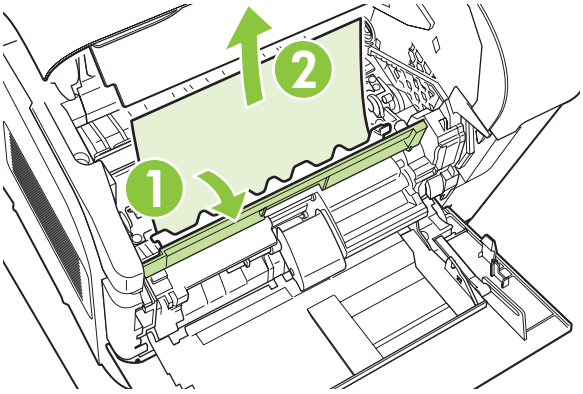
2. Use the green handle to lift the paper-access plate. Slowly pull the jammed paper out of the product. Do not tear the paper. If paper is difficult to remove, try clearing it from the tray area. See Clear jams from the trays on page 311.



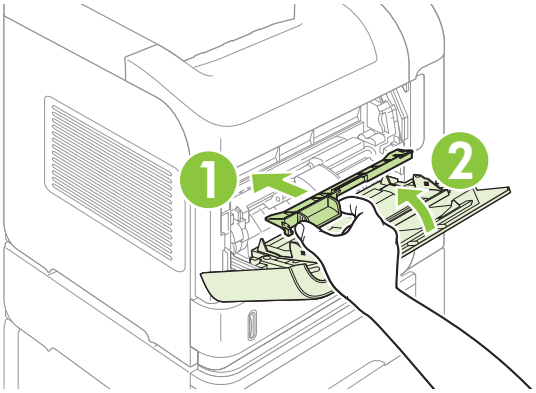
3. Open Tray 1 and remove the envelope accessory cover. If paper is present, remove it.



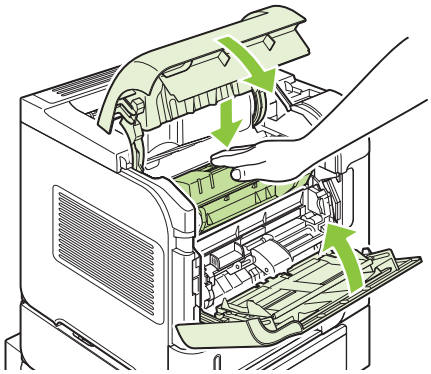
4. Rotate the paper guide to check for additional jammed paper underneath. If jammed paper is present, remove it.



5. Replace the envelope accessory cover and close Tray 1.



6. Reinstall the print cartridge and close the top cover.

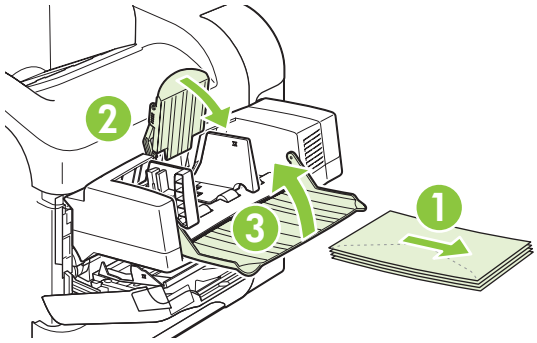


7. If a jam message persists, jammed paper is still in the product. Look for the jam in another location. See Jam locations on page 306.

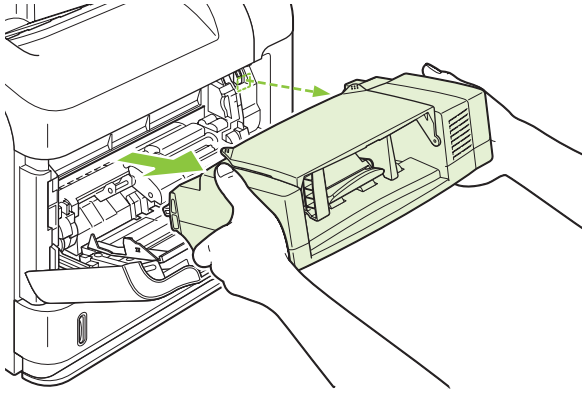
Clear jams from the optional envelope feeder

This procedure applies only to jams that occur when you are using an optional envelope feeder.

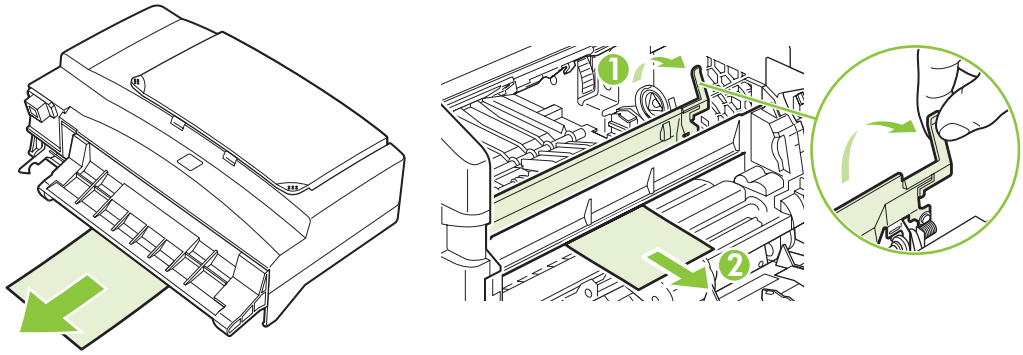
1. Remove any envelopes that are loaded in the optional envelope feeder. Lower the envelope weight and lift the tray extension up, to the closed position.



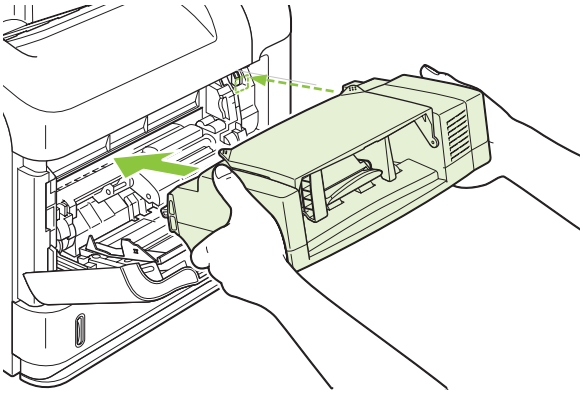
2. Grasp both sides of the optional envelope feeder and carefully pull it out of the product.



3. Slowly remove any jammed envelopes from the optional envelope feeder and the product.



4. Reinstall the envelope feeder.



5. Press OK to clear the jam message.

6. If a jam message persists, an envelope is still jammed in the product. Look for the jam in another location. See Jam locations on page 306.

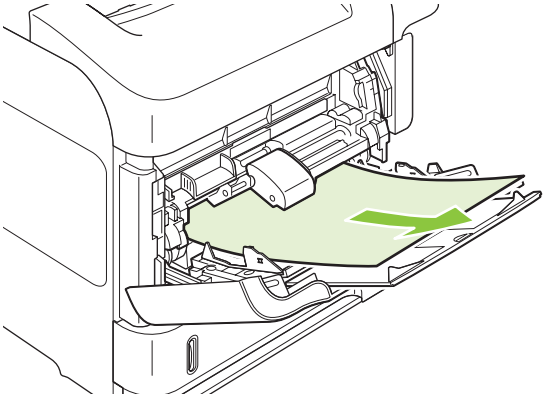
7. Replace the envelopes, making sure that you push the bottom envelopes in slightly further than the top envelopes.

Clear jams from the trays

Use these procedures to clear jams from the trays. Also see Clear jams from the optional envelope feeder on page 309.

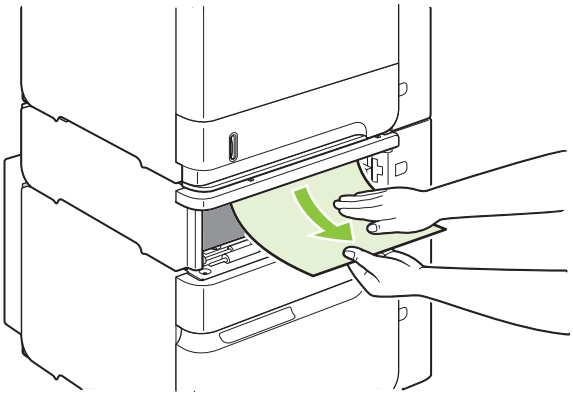
Clear jams from Tray 1

Slowly pull the jammed paper or other print media out of the product. If part of the paper has already been pulled into the product, see Clear jams from the top-cover and print-cartridge areas on page 307.

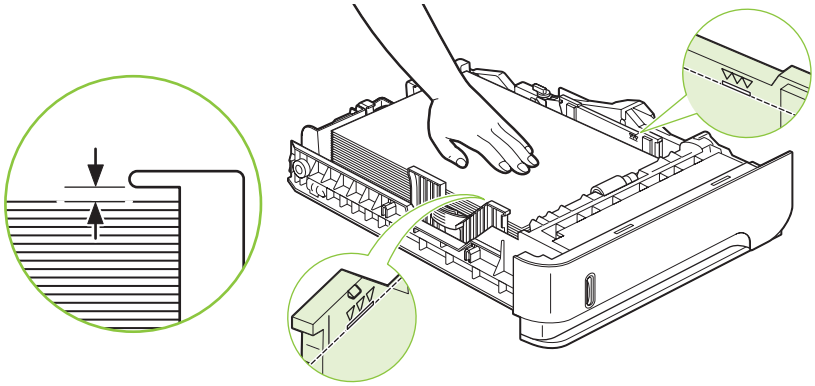


Clear jams from Tray 2 or an optional 500-sheet tray

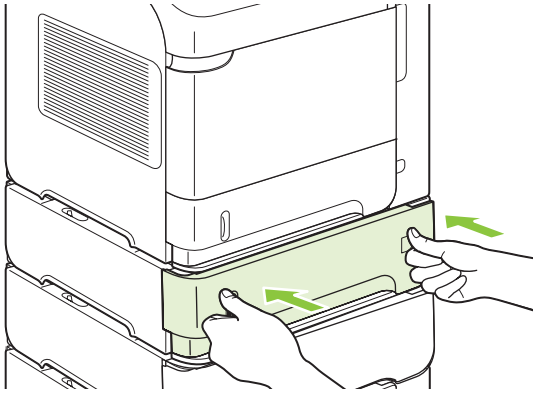
1. Slide the tray out of the product, lift it slightly, and remove any damaged paper from the tray.
2. If the edge of the jammed paper is visible in the feed area, slowly pull the paper down and out of the product. (Do not pull the paper straight out, or it will tear.) If the paper is not visible, look in the next tray or in the top-cover area. See Clear jams from the top-cover and print-cartridge areas on page 307.



3. Make sure that the paper is flat in the tray at all four corners and below the maximum-height indicators.



4. Slide the tray into the product.

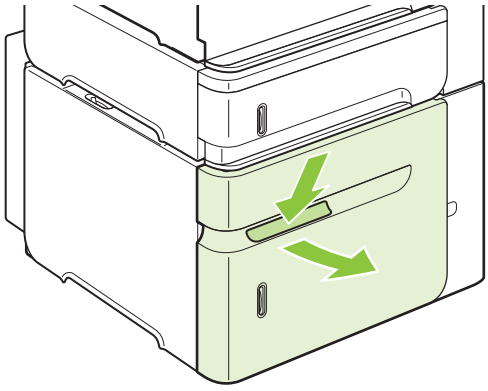


5. Press OK to clear the jam message.

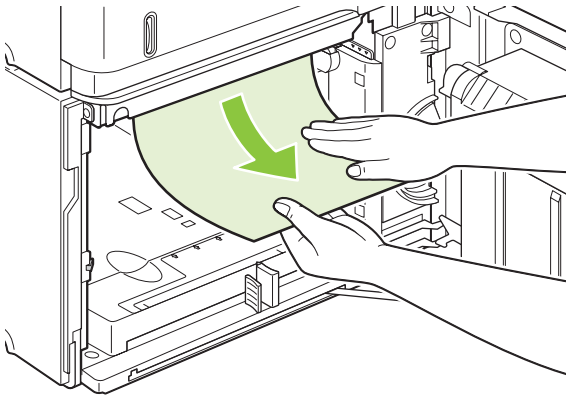
6. If a jam message persists, a sheet is still jammed in the product. Look for the jam in another location. See Jam locations on page 306.

Clear jams from the optional 1,500-sheet tray

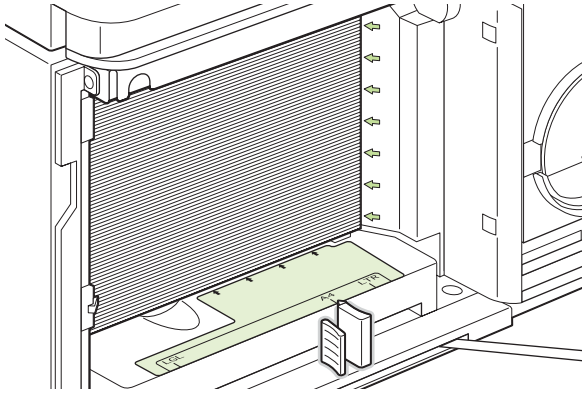
1. Open the front door of the tray.



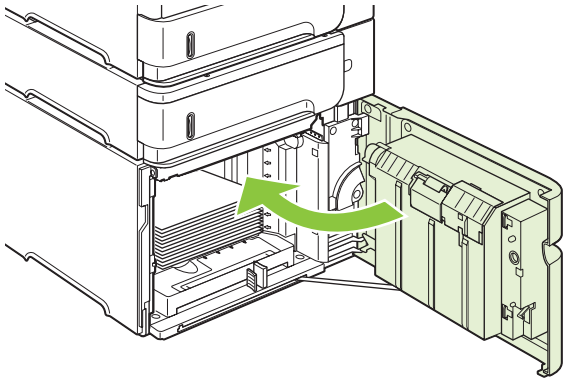
2. If the edge of the jammed paper is visible in the feed area, slowly pull the paper down and out of the product. (Do not pull the paper straight out, or it will tear.) If the paper is not visible, look in the top-cover area. See Clear jams from the top-cover and print-cartridge areas on page 307.



3. Make sure that the paper does not exceed the fill marks on the paper guides, and that the front edge of the stack is aligned with the arrows.



4. Close the front door of the tray.

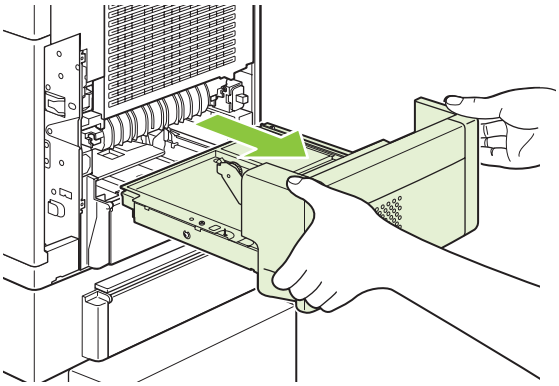


5. Press OK to clear the jam message.

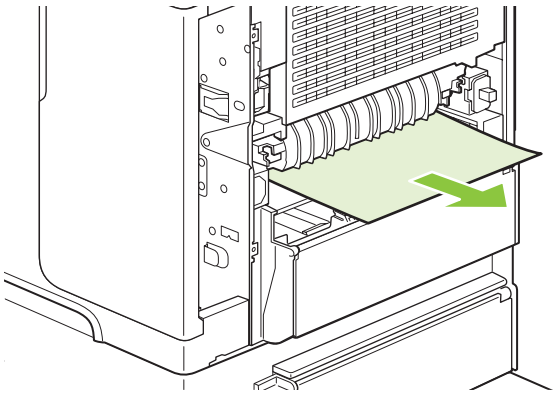
6. If a jam message persists, a sheet is still jammed in the product. Look for the jam in another location. See Jam locations on page 306.

Clear jams from the optional duplexer

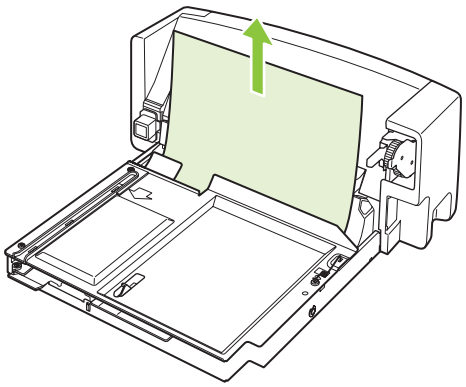
1. Lift the optional duplexer up and then pull it out to remove it.

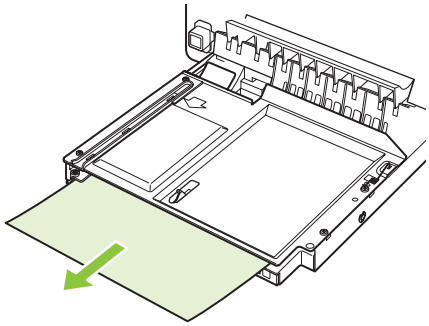


2. Remove any paper that is on top of Tray 2. (You might need to reach inside the product.)

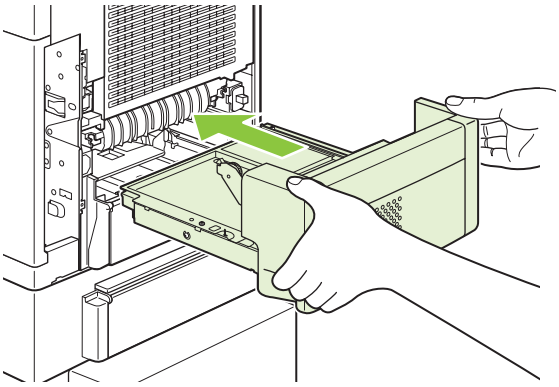


3. Slowly pull any paper out of the optional duplexer.





4. Insert the optional duplexer into the product.



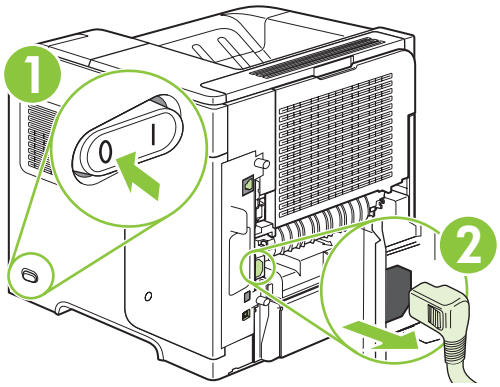
5. If a jam message persists, a sheet is still jammed in the product. Look for jam in another location. See Jam locations on page 306.

Clear jams from the fuser area

Use this procedure only in these situations:

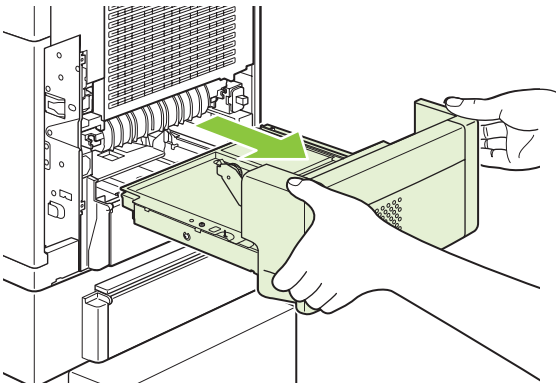
- Paper has jammed inside the fuser and cannot be removed from the top-cover area or the rear-output area.
- A sheet of paper has torn while you were trying to clear a jam from the fuser.

1. Turn the product off and unplug the power cord from the product.

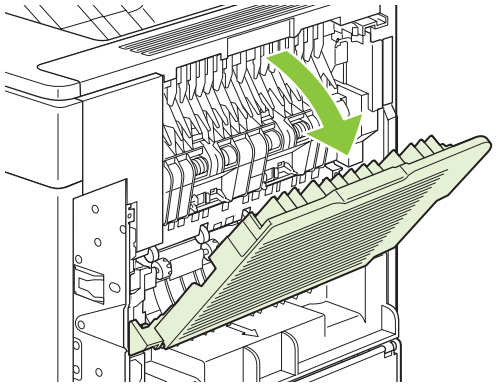


⚠ **WARNING!** The fuser is very hot. To avoid minor burns, wait 30 minutes for the fuser to cool before removing it from the product.

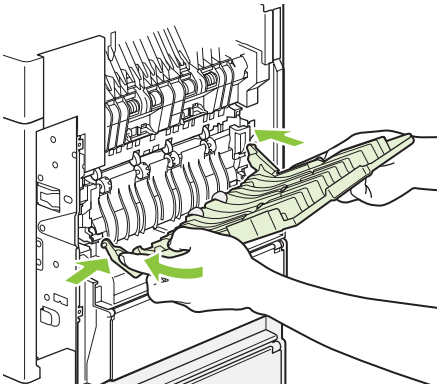
2. Rotate the product so the rear is facing you. If an optional duplexer is installed, lift it and pull it straight out. Set it aside.



3. Open the rear output bin.

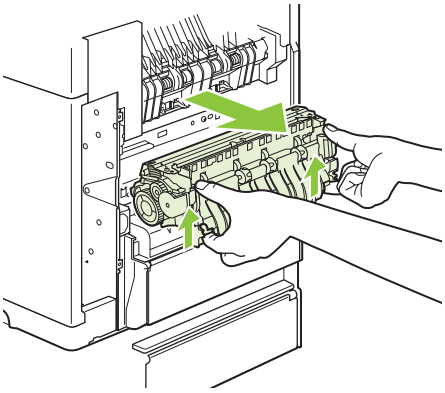


4. Remove the rear output bin. Place your finger near the left-side hinge, and push firmly to the right until the hinge-pin clears the hole inside the product. Rotate the output bin outward to remove it.

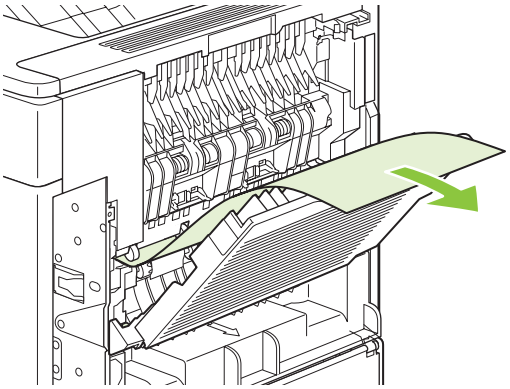


5. If paper is visible, remove it.

   If paper is not visible, push up on the two blue levers on the sides of the fuser, and pull the fuser straight out.

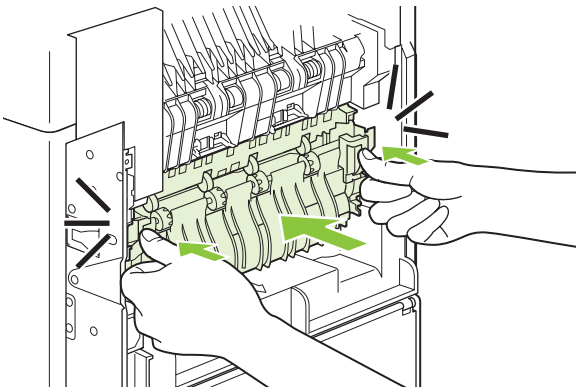


6. Remove the jammed paper. If necessary, lift the black plastic guide that is located on the top of the fuser to gain access to the jammed sheet.

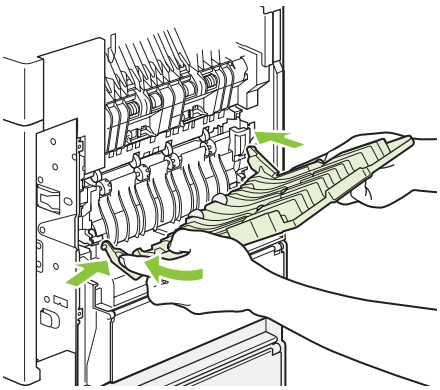


△ **CAUTION:** Do not use a sharp or metal object to clear paper from the fuser area. You might damage the fuser.

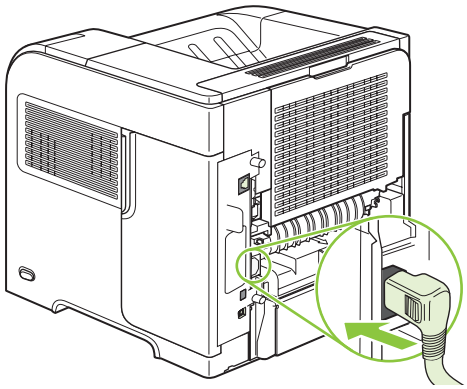
7. Push the fuser firmly into the product until the blue levers on both sides click into place.



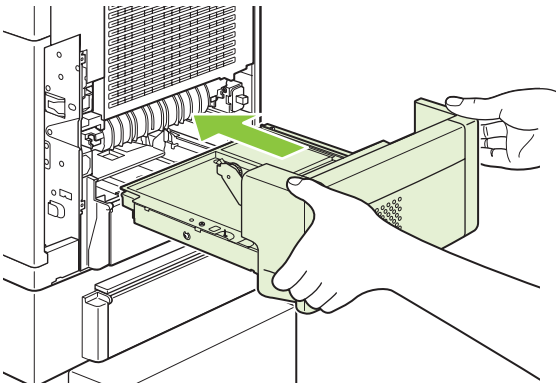
8. Reinstall the rear output bin. Insert the right hinge-pin into the hole inside the product. Push inward on the left hinge, and slide it into the hole inside the product. Close the rear output bin.



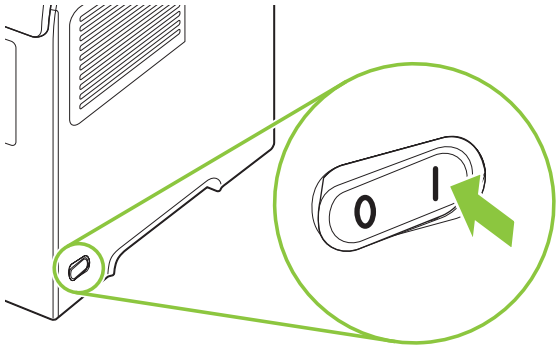
9. Plug the power cord into the product.



10. Replace the optional duplexer, if it was removed.



11. Turn the product on.



12. If a jam message persists, a sheet is still jammed in the product. Look for the jam in another location. See Jam locations on page 306.

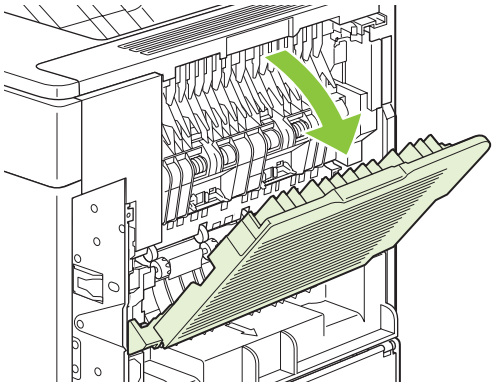
After clearing all jams, you need to send the print job again because the product power has been turned off.

Clear jams from the output areas

Use these procedures to clear jams that occur in the rear output bin or in the optional stacker, stapler/stacker, or 5-bin mailbox.

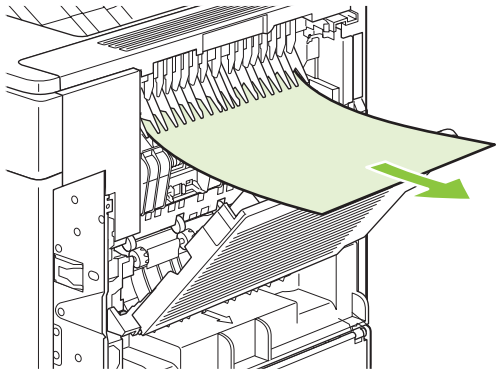
Clear jams from the rear output bin

1. Open the rear output bin.



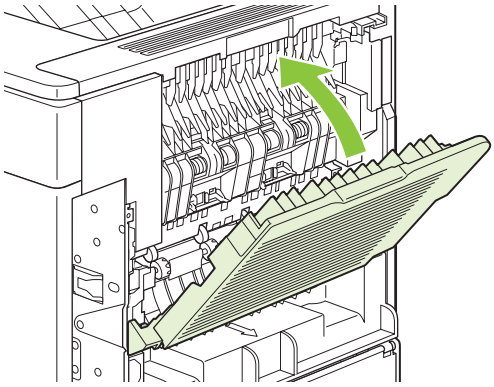
NOTE: If most of the paper is still inside the product, it might be easier to remove it through the top-cover area. See Clear jams from the top-cover and print-cartridge areas on page 307.

2. Grasp both sides of the paper, and slowly pull the paper out of the product. Loose toner might be on the sheet. Be careful not to spill it on yourself or into the product.



NOTE: If the jammed paper is difficult to remove, try opening the top cover all the way to release pressure on the paper. If the sheet has torn, or if you still cannot remove it, see Clear jams from the fuser area on page 315.

3. Close the rear output bin.



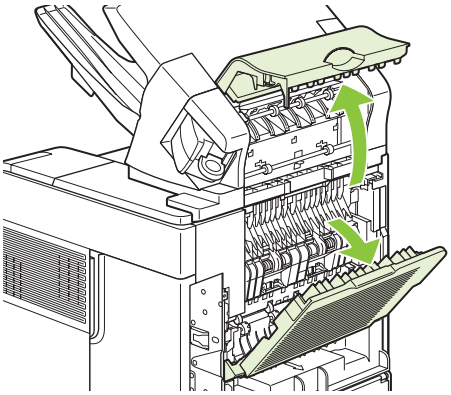
4. If a jam message persists, a sheet is still jammed in the product. Look for the jam in another location. See Jam locations on page 306.

Clear jams from the optional stacker or stapler/stacker

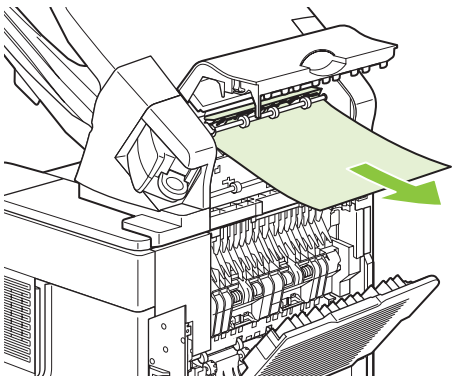
Paper jams can occur in the optional stacker or the optional stapler/stacker. Staple jams can occur only in the optional stapler/stacker.

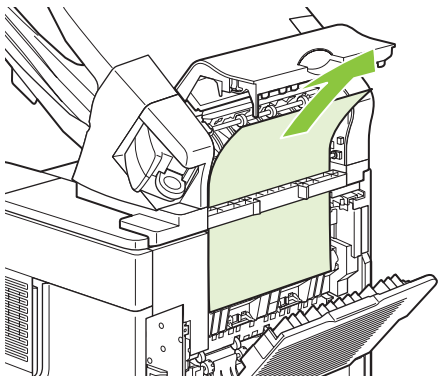
Clear paper jams from the optional stacker or stapler/stacker

1. At the back of the product, open the door on the stacker or stapler/stacker, and open the rear output bin.

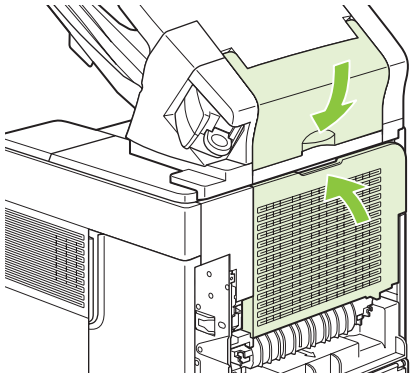


2. Carefully remove any jammed paper.





3. Close the door on the stacker or stapler/stacker, and close the rear output bin.



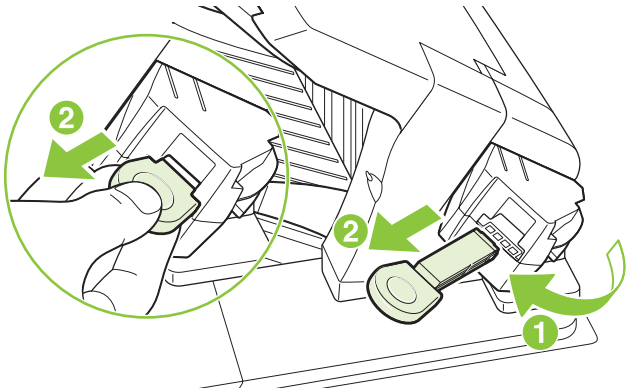
4. If a jam message persists, a sheet is still jammed. Look for it in another location. Check the front of the accessory and carefully remove any jammed paper. See Jam locations on page 306.

NOTE: The output bin must be pushed down into the lowest position for printing to continue.

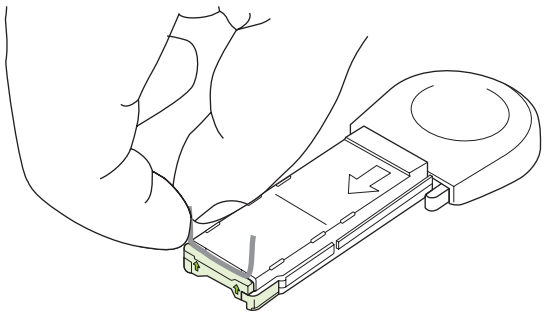
Clear staple jams from the optional stapler/stacker

NOTE: Clear staple jams when the message **JAM IN STAPLER** appears on the product control-panel display.

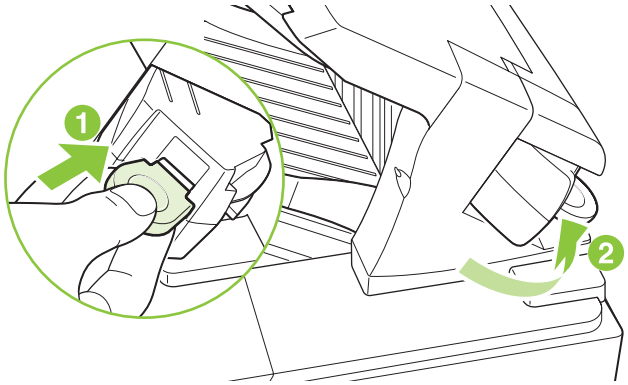
1. On the right side of the stapler/stacker, turn the stapler unit toward the front of the product until the unit clicks into the open position. Pull outward on the blue staple cartridge to remove it.



2. Rotate the green cover on the end of the staple cartridge upward, and remove the jammed staple.



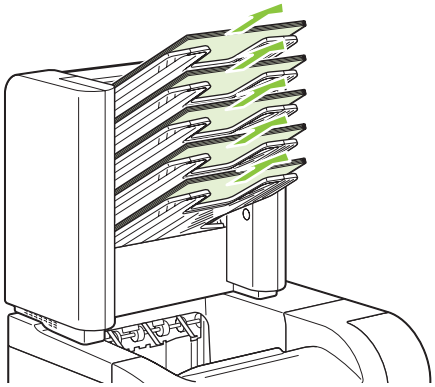
3. Insert the staple cartridge into the stapler unit, and rotate the stapler unit toward the rear of the product until the unit snaps into place.



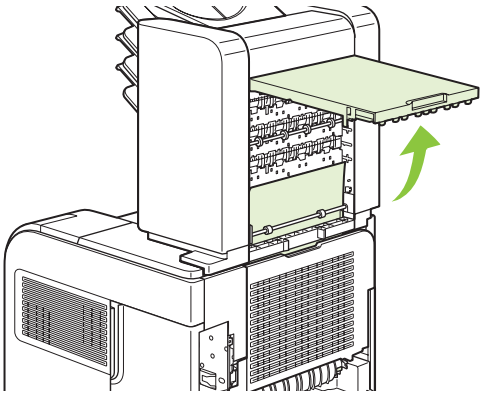
The stapler needs to reload after clearing a staple jam, so the first few documents might not be stapled. If a print job is sent and the stapler is jammed or is out of staples, the job will still print as long as the path to the stacker bin is not blocked.

Clear jams from the optional 5-bin mailbox

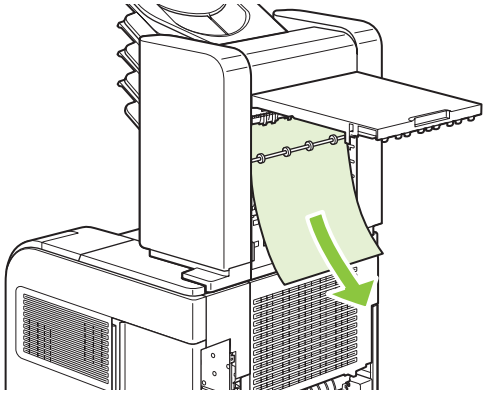
1. Remove any paper that is in the output bins.



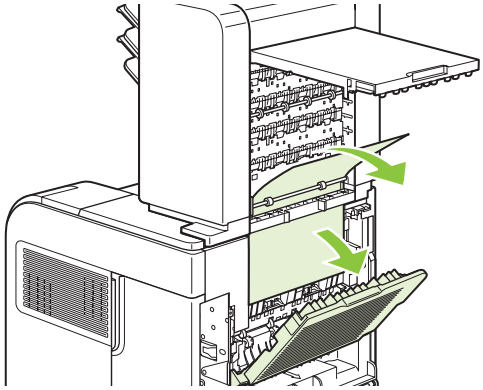
2. On the back of the 5-bin mailbox, open the jam-access door.



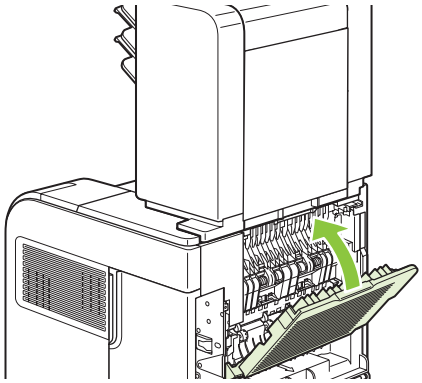
3. If the paper is jammed at the top of the 5-bin mailbox, pull it straight down to remove it.



4. If the paper is jammed at the bottom of the 5-bin mailbox, open the rear output bin, and then pull straight up on the paper to remove it.



5. Close the jam-access door and the rear output bin.



Jam recovery

This product provides jam recovery, a feature that you can use to reprint jammed pages. The following options are available:

- **AUTO** — The product attempts to reprint jammed pages when sufficient memory is available.
- **OFF** — The product does not attempt to reprint jammed pages. Because no memory is used to store the most recent pages, performance is optimal.

> **NOTE:** When using this option, if the product runs out of paper and the job is being printed on both sides, some pages can be lost.

- **ON** — The product always reprints jammed pages. Additional memory is allocated to store the last few pages printed. This might cause overall performance to suffer.

Set the jam recovery feature

1. Press Menu.
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press OK.
3. Press the down arrow ▼ to highlight **SYSTEM SETUP**, and then press OK.
4. Press the down arrow ▼ to highlight **JAM RECOVERY**, and then press OK.
5. Press the down arrow ▼ or the up arrow ▲ to highlight the appropriate setting, and then press OK.

Product feeds incorrect page size

Product feeds incorrect page size

Cause	Solution
The correct size paper is not loaded in the input tray.	Load the correct size paper in the input tray.
The correct size paper is not selected in the software program or printer driver.	Confirm that the settings in the software program and printer driver are correct, because the software program settings override the printer driver and control panel settings, and the printer driver settings override the control panel settings. For more information, see user guide.
The correct size paper for the tray is not selected in the product control panel.	From the control panel, select the correct size paper for the tray.
The paper size is not configured correctly for the input tray.	Print a configuration page or use the control panel to determine the paper size for which the tray is configured.
The guides in the tray are not against the paper.	Verify that the paper guides are touching the paper.

Output is curled or wrinkled

Output is curled or wrinkled

Cause	Solution
Paper does not meet the specifications for this product.	Use only paper that meets the HP paper specifications for this product.
Paper is damaged or in poor condition.	Remove paper from the input tray and load paper that is in good condition.
Product is operating in an excessively humid environment.	Verify that the printing environment is within humidity specifications.
You are printing large, solid-filled areas.	Large, solid-filled areas can cause excessive curl. Try using a different pattern.
Paper used was not stored correctly and might have absorbed moisture.	Remove paper and replace it with paper from a fresh, unopened package.
Paper has poorly cut edges.	Remove paper, flex it, rotate it 180 degrees or turn it over, and then reload it into the input tray. Do not fan paper. If the problem persists, replace the paper.
The specific paper type was not configured for the tray or selected in the software.	Configure the software for the paper (see the software documentation). Configure the tray for the paper, see Load trays on page 54.
The paper has previously been used for a print job.	Do not re-use paper.

Product will not duplex or duplexes incorrectly

Product will not duplex (print 2-sided jobs) or duplexes incorrectly

Cause	Solution
You are trying to duplex on unsupported paper.	Verify that the paper is supported for duplex printing.
The printer driver is not set up for duplex printing.	Set up the printer driver to enable duplex printing.
The first page is printing on the back of preprinted forms or letterhead.	Load preprinted forms and letterhead in Tray 1 with the letterhead or printed side down, with the top of the page toward the back of the product. For Tray 2, 3, 4 and 5, load the paper printed side up with the top of the page toward the back of the product.
The product model does not support automatic 2-sided printing.	Print a configuration page to verify that a duplex accessory is installed and enabled.
The product configuration is not set for duplexing.	In Windows, run the automatic configuration feature: 1. Click the **Start** button, point to **Settings**, and then click **Printers** (for Windows 2000) or **Printers and Faxes** (for Windows XP). 2. Right-click the HP product icon, and then click **Properties** or **Printing Preferences**. 3. Click the **Device Settings** tab. 4. Under **Installable Options**, click **Update Now** in the **Automatic Configuration** list.

Solve image quality problems

Image defects

These examples identify the most common print-quality problems. If you still have problems after trying the suggested solutions, contact HP Customer Support.

Table 7-9 Image defect examples

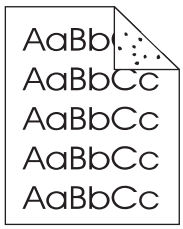
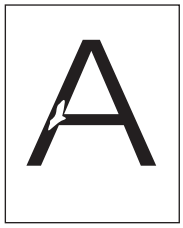
Problem	Image example	Solution
Light print (partial page)		1. Make sure that the print cartridge is fully installed. 2. The toner level in the print cartridge might be low. Replace the print cartridge. 3. The paper might not meet HP specifications (for example, the paper is too moist or too rough). See Paper and print media on page 47.
Light print (entire page)		1. Make sure that the print cartridge is fully installed. 2. Make sure that the **ECONOMODE** setting is turned off at the control panel and in the printer driver. 3. Open the **CONFIGURE DEVICE** menu at the product control panel. Open the **PRINT QUALITY** submenu and increase the **TONER DENSITY** setting. See Print Quality submenu on page 30. 4. Try using a different type of paper. 5. The print cartridge might be almost empty. Replace the print cartridge. 6. Clean the product paper path. 7. Replace the transfer roller.
Specks		Specks might appear on a page after a jam has been cleared. 1. Print a few more pages to see if the problem corrects itself. 2. Clean the inside of the product and run a cleaning page to clean the fuser. (See Clean the paper path on page 95.) 3. Try using a different type of paper. 4. Check the print cartridge for leaks. If the print cartridge is leaking, replace it. 5. Clean the product paper path several times.
Dropouts		1. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 504.) 2. If the paper is rough, and the toner easily rubs off, open the **CONFIGURE DEVICE** menu at the product control panel. Open the **PRINT QUALITY** submenu, select **FUSER MODES**, and then select the paper type you are using. Change the setting to **HIGH1** or **HIGH2**, which helps the toner fuse more completely onto the paper. (See Print Quality submenu on page 30.) 3. Try using a smoother paper that you know will work in the product. 4. Replace the transfer roller.

Table 7-9 Image defect examples (continued)

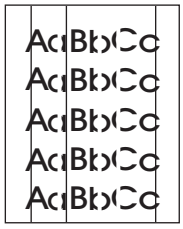
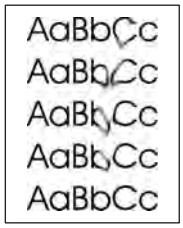
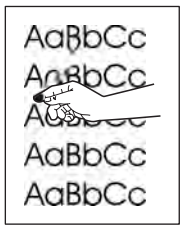
Problem	Image example	Solution
Lines		1. Print a few more pages to see if the problem corrects itself. 2. Clean the inside of the product and run a cleaning page to clean the fuser. (See Clean the product on page 95.) 3. Replace the print cartridge.
Gray background		1. Do not use paper that has already been run through the product. 2. Try using a different type of paper. 3. Print a few more pages to see if the problem corrects itself. 4. Turn over the paper in the tray. Also, try rotating the paper 180°. 5. Open the **CONFIGURE DEVICE** menu at the product control panel. On the **PRINT QUALITY** submenu, increase the **TONER DENSITY** setting. See Print Quality submenu on page 30. 6. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 504.) 7. Clean the product paper path. 8. Replace the print cartridge.
Toner smear		1. Print a few more pages to see if the problem corrects itself. 2. Try using a different type of paper. 3. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 504.) 4. Clean the inside of the product and run a cleaning page to clean the fuser. (See Clean the product on page 95.) 5. Replace the print cartridge.
Loose toner		Loose toner, in this context, is defined as toner that can be rubbed off the page. 1. If paper is heavy or rough, open the **CONFIGURE DEVICE** menu at the product control panel. On the **PRINT QUALITY** submenu, select **FUSER MODES**, and then select the paper type you are using. Change the setting to **HIGH1** or **HIGH2**, which helps the toner fuse more completely onto the paper. (See Print Quality submenu on page 30.) You must also set the type of paper for the tray you are using. (See Select the paper by source, type, or size on page 62.) 2. If you have observed a rougher texture on one side of your paper, try printing on the smoother side. 3. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 504.) 4. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 47.)

Table 7-9 Image defect examples (continued)

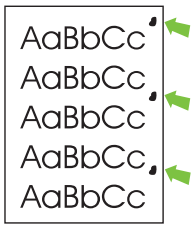
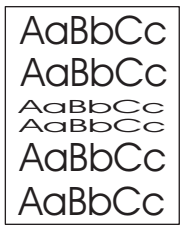
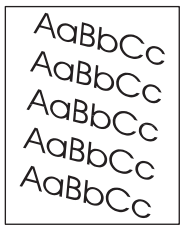
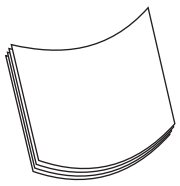
Problem	Image example	Solution
Repeat defects		1. Print a few more pages to see if the problem corrects itself. 2. Clean the inside of the product and run a cleaning page to clean the fuser. (See Clean the product on page 95.) 3. The print cartridge might need to be replaced. If the error persists, see Repetitive image defect ruler on page 280.
Repeat image		This type of defect might occur when using preprinted forms or a large quantity of narrow paper. 1. Print a few more pages to see if the problem corrects itself. 2. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 47.) 3. The print cartridge might need to be replaced. If the error persists, see Repetitive image defect ruler on page 280.
Misformed characters		1. Print a few more pages to see if the problem corrects itself. 2. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 504.) 3. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 47.) 4. Try using another input tray.
Page skew		1. Print a few more pages to see if the problem corrects itself. 2. Verify that no torn pieces of paper are inside the product. 3. Make sure that paper is loaded correctly and that all adjustments have been made. (See Load trays on page 54.) Make sure that the guides in the tray are not too tight or too loose against the paper. 4. Turn over the paper in the tray. Also, try rotating the paper 180°. 5. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 47.) 6. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 504.) 7. If the error persists, replace the registration assembly.
Curl or wave		1. Turn over the paper in the tray. Also, try rotating the paper 180°. 2. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 47.) 3. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 504.) 4. Try printing to a different output bin. 5. If paper is lightweight and smooth, open the **CONFIGURE DEVICE** menu at the product control panel. On the **PRINT QUALITY** submenu, select **FUSER MODES**, and then select the paper type you are using. Change the setting to **LOW**, which helps reduce the heat in the fusing process. (See Print Quality

Table 7-9 Image defect examples (continued)

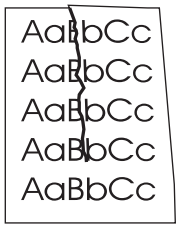
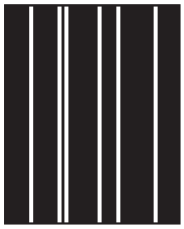
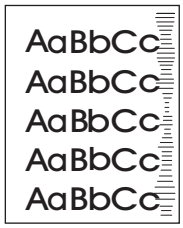
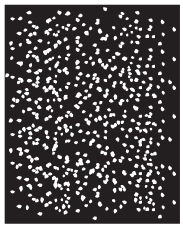
Problem	Image example	Solution
		submenu on page 30.) You must also set the type of paper for the tray you are using. (See Select the paper by source, type, or size on page 62.)
Wrinkles or creases		1. Print a few more pages to see if the problem corrects itself. 2. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 504.) 3. Turn over the paper in the tray. Also, try rotating the paper 180°. 4. Make sure that paper is loaded correctly and all adjustments have been made. (See Load trays on page 54.) 5. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 47.) 6. Try using another input tray. 7. If envelopes are creasing, try storing envelopes so that they lie flat. 8. If paper is lightweight and smooth, open the **CONFIGURE DEVICE** menu at the product control panel. On the **PRINT QUALITY** submenu, select **FUSER MODES**, and then select the paper type you are using. Change the setting to **LOW**, which helps reduce the heat in the fusing process. (See Print Quality submenu on page 30.) You must also set the type of paper for the tray you are using. (See Select the paper by source, type, or size on page 62.)
Vertical white lines		1. Print a few more pages to see if the problem corrects itself. 2. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 47.) 3. Replace the print cartridge.
Tire tracks		This defect typically occurs when the print cartridge has far exceeded its rated life. For example, if you are printing a very large quantity of pages with very little toner coverage. 1. Replace the print cartridge. 2. Reduce the number of pages that you print with very low toner coverage.
White spots on black		1. Print a few more pages to see if the problem corrects itself. 2. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 47.) 3. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 504.) 4. Clean the product paper path. 5. Replace the print cartridge.

Table 7-9 Image defect examples (continued)

Problem	Image example	Solution
Scattered lines		1. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 47.) 2. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 504.) 3. Turn over the paper in the tray. Also, try rotating the paper 180°. 4. Open the **CONFIGURE DEVICE** menu at the product control panel. Open the **PRINT QUALITY** submenu and change the **TONER DENSITY** setting. (See Print Quality submenu on page 30.) 5. Open the **CONFIGURE DEVICE** menu at the product control panel. On the **PRINT QUALITY** submenu, open **OPTIMIZE** and set **LINE DETAIL=ON**.
Blurred print		1. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 47.) 2. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 504.) 3. Turn over the paper in the tray. Also, try rotating the paper 180°. 4. Do not use paper that already has been run through the product. 5. Decrease the toner density. Open the **CONFIGURE DEVICE** menu at the product control panel. Open the **PRINT QUALITY** submenu and change the **TONER DENSITY** setting. (See Print Quality submenu on page 30.) 6. Open the **CONFIGURE DEVICE** menu at the product control panel. On the **PRINT QUALITY** submenu, open **OPTIMIZE** and set **HIGH TRANSFER=ON**. (See Print Quality submenu on page 30.)
Random image repetition		If an image that appears at the top of the page (in solid black) repeats further down the page (in a gray field), the toner might not have been completely erased from the last job. (The repeated image might be lighter or darker than the field it appears in.) • Print the job several times to determine if the problem persists. • Change the tone (darkness) of the field that the repeated image appears in. • Change the order in which the images are printed. For example, have the lighter image at the top of the page, and the darker image farther down the page. • From your software program, rotate the whole page 180° to print the lighter image first. • If the defect occurs later in a print job, turn the product off for 10 minutes, and then turn it on to restart the print job.

Solve performance problems

Problem	Cause	Solution
Pages print but are totally blank.	The sealing tape might still be in the print cartridges.	Verify that the sealing tape has been completely removed from the print cartridges.
	The document might contain blank pages.	Check the document that you are printing to see if content appears on all of the pages.
	The product might be malfunctioning.	To check the product, print a configuration page.
Pages print very slowly.	Heavier media types can slow the print job.	Print on a different type of media.
	Complex pages can print slowly.	Proper fusing may require a slower print speed to ensure the best print quality.
	If printed in large batches, narrow paper can slow the print job.	Print on a different paper size or in smaller batches.
Pages did not print.	The product might not be pulling media correctly.	Make sure paper is loaded in the tray correctly. If the problem persists, you might need to replace the pickup rollers and the separation roller. See Removal and replacement on page 129.
	The media is jamming in the product.	Clear the jam. See Jams on page 304.
	The USB cable or network cable might be defective or incorrectly connected.	• Disconnect the cable at both ends and reconnect it. • Try printing a job that has printed in the past. • Try using a different cable.
	Other devices are running on your computer.	The product might not share a USB port. If you have an external hard drive or network switchbox that is connected to the same port as the product, the other device might be interfering. To connect and use the product, you must disconnect the other device or you must use two USB ports on the computer.

Solve connectivity problems

Solve direct-connect problems

If you have connected the product directly to a computer, check the USB cable.

- Verify that the cable is connected to the computer and to the product.
- Verify that the cable is not longer than 2 meters (6 feet). Replace the cable if necessary.
- Verify that the cable is working correctly by connecting it to another product. Replace the cable if necessary.

Solve network connectivity problems

If the product is having problems communicating with the network, use the information in this section to resolve the problem.

Solve network printing problems

NOTE: HP recommends that you use the product CD to install and set up the product on a network.

- Make sure that the network cable is securely seated into the product's RJ45 connector.
- Make sure that the Link LED on the formatter is lit. See Understand lights on the formatter on page 245.
- Make sure that the I/O card is ready. Print a configuration page (see Print the information and show-me-how pages on page 66). If an HP Jetdirect print server is installed, printing a configuration page also prints a second page that shows the network settings and status.

  NOTE: The HP Jetdirect print server supports various network protocols (TCP/IP, IPX/SPX, Novell NetWare, AppleTalk, and DCL/LLC). Make sure that the correct protocols and network parameters are set correctly.

  On the HP Jetdirect configuration page, verify the following items for your protocol:

  - Under HP Jetdirect Configuration, the status is "I/O Card Ready."
  - Protocol status is "Ready."
  - An IP address is listed.
  - The configuration method (Config by:) is listed correctly. See the network administrator if you are not sure which method is correct.
  - The domain name is listed correctly.
- Try printing the job from another computer.
- To verify that a product works with a computer, use a USB cable to connect it directly to a computer. You will have to reinstall the printing software. Print a document from a program that has printed correctly in the past. If this works, a problem with the network might exist.
- Contact your network administrator for assistance.

Ping test

If the HP Jetdirect configuration page shows an IP address for the product, use this procedure to verify that you can communicate with the product over the network.

1. Press Menu .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press OK.
3. Press the down arrow ▼ to highlight **I/O**, and then press OK.
4. Press the down arrow ▼ to highlight **EMBEDDED JETDIRECT MENU**, and then press OK.
5. Press the down arrow ▼ to highlight **DIAGNOSTICS**, and then press OK.
6. Press the down arrow ▼ to highlight **PING TEST**, and then press OK.
7. Set the appropriate options for each of the menu items:
   - **DEST TYPE**=IPv4 or IPv6
   - **DEST IP**=XXX.XXX.XXX.XXX
   - **PACKET SIZE**=64
   - **TIMEOUT**=1 second
   - **COUNT**=4
   - **PRINT RESULTS**=YES
   - **EXECUTE**=YES

   After setting **EXECUTE**=YES, the ping test starts. If you selected to print the results, the product prints a page that lists the ping statistics. If the page prints, the test was successful.

Service mode functions

Service menu

The **SERVICE** menu is PIN-protected for added security. Only authorized service people have access to the **SERVICE** menu. When you select **SERVICE** from the list of menus, the product prompts you to enter an eight-digit PIN number.

- The PIN for the HP LaserJet P4014 models is 05401408.
- The PIN for the HP LaserJet P4015 models is 05401508.
- The PIN for the HP LaserJet P4515 models is 05451508.

1. Press Menu .
2. Press the down arrow ▼ to highlight **SERVICE**, and then press OK.
3. Enter the PIN using the alphanumeric keypad.
4. Press OK to enter the PIN and open the **SERVICE** menu.

The following menu items appear in the **SERVICE** menu:

- **CLEAR EVENT LOG**: Use this item to clear the product event log.
- **CLEAR BOOTLOADER PASSWORD**: Use this item to clear the password that was set to prevent someone from performing an unauthorized cold reset on the product.
- **TOTAL PAGE COUNT**: After replacing the formatter, use this item to reset the page count so that the figure continues to represent the page count for the product engine. See Reset page counts on page 339.
- **REFURBISH CYCLE COUNT**: Use this item to record the page count when the product was refurbished.
- **MAINTENANCE COUNT**: Use this item to set the number of pages that have been printed since the last maintenance kit was installed or the total number of pages that have been printed on the product if a maintenance kit has not yet been installed.
- **MAINTENANCE INTERVAL**: Use this item to specify the number of pages that can be printed before a maintenance kit message appears on the control panel to indicate that a maintenance kit is required.
- **SERIAL NUMBER**: After replacing the formatter, use this item to reset the product serial number.
- **SERVICE ID**: See Service ID on page 339.
- **COLD RESET PAPER**: See Cold reset paper on page 339.

Product resets

Restore factory-set defaults

Restoring the product to the factory-set defaults performs a simple reset and restores most of the factory (default) settings. This item also clears the input buffer for the active I/O.

1. Press Menu .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press OK.
3. Press the down arrow ▼ to highlight **RESETS**, and then press OK.
4. Press the down arrow ▼ to highlight **RESTORE FACTORY SETTINGS**, and then press OK.

Hard disk initialization

A hard disk initialization will erase and reformat the product's hard disk. Perform hard disk initialization only if an error code displays on the control panel indicating a disk error. Always try initializing the hard disk before replacing it.

1. Turn the product on.
2. As the product performs its power-on sequence, press and hold the Menu button until all three lights on the control panel are lit.
3. Press the back arrow ⮌. The message **INITIALIZE DISC** displays on the control panel.
4. Press OK. The product initializes the hard disk and continues the power-on sequence.

NVRAM initialization

△ **CAUTION:** Initializing NVRAM resets the serial number, the event log, the page counts, the calibration settings, and the EIO card. Use the **SERVICE** menu to restore the serial number and page counts. You also need to reconfigure any computers that print to this product to recognize the product. Initialize NVRAM only when absolutely necessary. In most situations, use a cold reset to reset product variables but still retain the needed values in the **SERVICE** menu.

Before initializing NVRAM, print a configuration page and a supplies status page to gather the following information:

- Total page count
- Serial number

1. Turn the product on and watch the control panel display.
2. When the display shows the memory count, press and hold the down arrow ▼ until all three lights on the control panel are lit.
3. Press the up arrow ▲.
4. Press Menu . The message **SKIP DISK LOAD** displays on the control panel.
5. Press the up arrow ▲ until **NVRAM INIT** is highlighted, and then press OK. The product initializes NVRAM and then continues its power-on sequence.

Service ID

Use this item to show the date that the product was first used on the control panel. This eliminates the need for users to keep paper receipts for proof of warranty.

Restore the service ID

If you replace the formatter, the date is lost. Use this menu item to reset the date to the original date that the product was first used. The date format is YYDDD. Use the following formula to calculate the dates:

1. To calculate YY, subtract 1990 from the calendar year. For instance, if the product was first used in 2002, calculate YY as follows: 2002 - 1990 = 12. YY = 12.
2. Subtract 1 from 10 (October is the tenth month of the year): 10 - 1 = 9.

   Multiply 9 by 30: 9 x 30 = 270.

   -or-

   Add 17 to 270: 270 + 17 = 287. Thus, DDD = 287.

Convert the service ID to an actual date

You can use the product Service ID number to determine whether the product is still under warranty. Use the following formula to convert the Service ID into the installation date as follows:

1. Add 1990 to YY to get the actual year that the product was installed.
2. Divide DDD by 30. If there is a remainder, add 1 to the result. This is the month.
3. The remainder from the calculation in step 2 is the date.

Using the Service ID 12287 as an example, the date conversion is as follows:

1. 12 + 1990 = 2002, so the year is 2002.
2. 287 divided by 30 = 9 with a remainder of 17. Since there is a remainder, add 1 to 9 to get 10, which represents October.
3. The remainder in step 2 is 17, so that is the date.
4. The complete date is 17-October-2002.

NOTE: A six-day grace period is built into the date system.

Reset page counts

The page count that is stored in NVRAM and printed on the configuration page represents the number of pages that the formatter has formatted (not including engine-test prints). If you install a new formatter when repairing a product, use this menu item to reset the page count to the previous value. In this way, the page count reflects the number of pages that the engine has printed rather than restarting the count for the new formatter.

Cold reset paper

When you perform a cold reset, the paper size that is stored in NVRAM is reset to the default factory setting. If you replace a formatter board in a country/region that uses A4 as the standard paper size, use this menu to reset the default paper size to A4. LETTER and A4 are the only available values.

8 Parts

- Order parts, accessories, and supplies
- Order replacement parts
- How to use the parts lists and diagrams
- Customer/field-replaceable units
- Assembly locations
- Covers
- Internal components
- PCAs
- Input devices
- Output devices
- Alphabetical parts list
- Numerical parts list

Order parts, accessories, and supplies

Several methods are available for ordering parts, supplies, and accessories.

Order directly from HP

You can obtain the following items directly from HP:

- **Replacement parts:** To order replacement parts in the U.S., go to www.hp.com/go/hpparts. Outside the United States, order parts by contacting your local authorized HP service center.
- **Supplies and accessories:** To order supplies in the U.S., go to www.hp.com/go/ljsupplies. To order supplies worldwide, go to www.hp.com/ghp/buyonline.html. To order accessories, go to www.hp.com/support/hpljp4010series or www.hp.com/support/hpljp4510series.

Order through service or support providers

To order a part or accessory, contact an HP-authorized service or support provider.

Order directly through the HP Easy Printer Care software

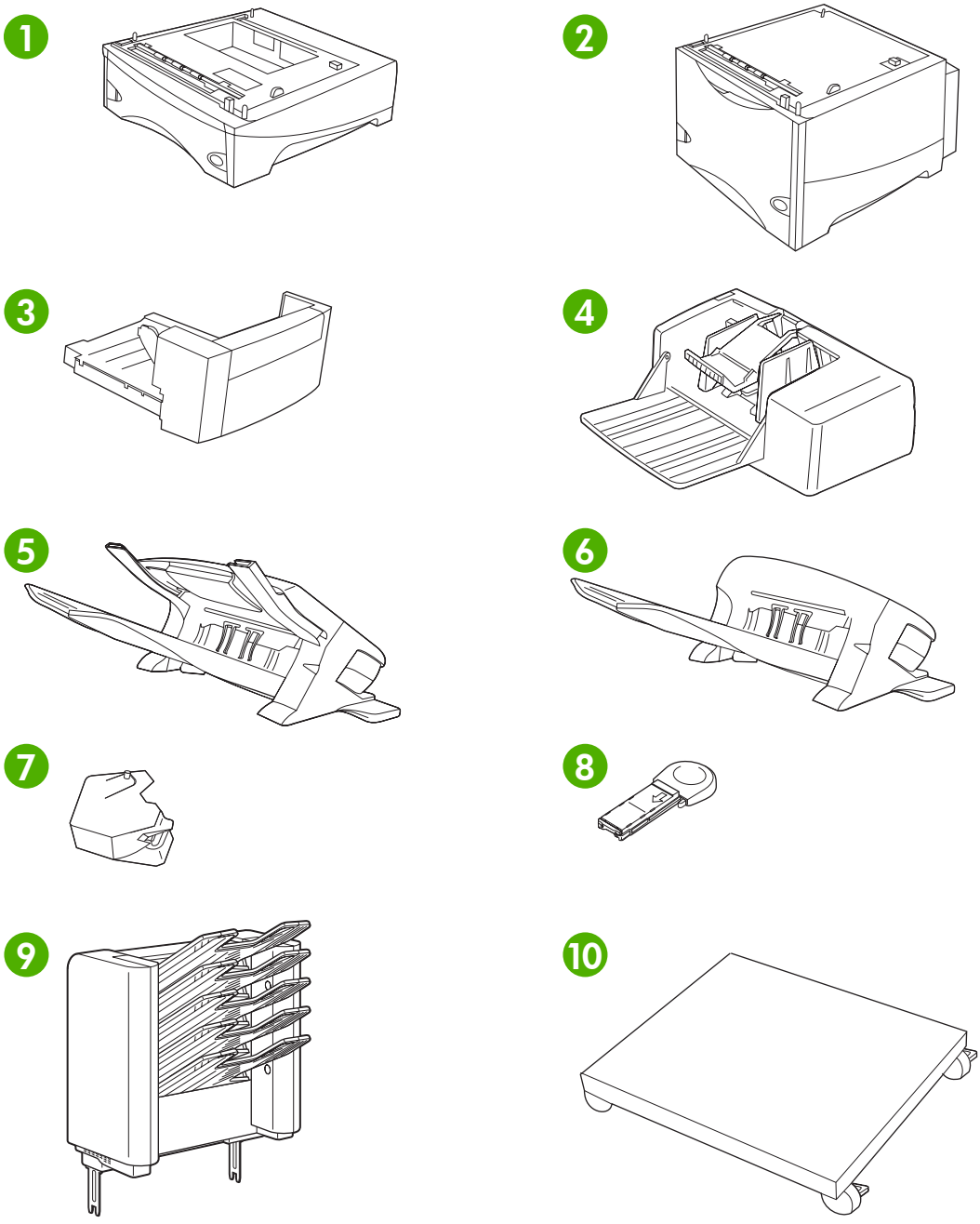
HP Easy Printer Care software is a product management tool designed to make product configuration, monitoring, supplies ordering, troubleshooting, and updating as simple and efficient as possible. For more information about HP Easy Printer Care software, see Use the HP Easy Printer Care software on page 68.

Order replacement parts

The following list of accessories was current at the time of printing. Ordering information and availability of the accessories might change during the life of the product

Paper-handling accessories

Figure 8-1 Paper-handling accessories



Ref	Item	Description	Product number	Part number
1	Optional 500-sheet feeder	Optional tray to increase paper capacity. Holds Letter, A4, Legal, A5, B5 (JIS), Executive, and 8.5 x 13 inch paper sizes. The product can accommodate up to four optional 500-sheet feeders.	CB518A	CB518-67901

Ref	Item	Description	Product number	Part number
2	Optional 1,500-sheet feeder	Optional tray to increase paper capacity. Holds Letter, Legal, and A4 paper sizes.	CB523A	CB523-67901
3	Duplexer (duplex printing accessory)	Allows automatic printing on both sides of the paper.	CB519A	CB519-67901
4	Envelope feeder	Holds up to 75 envelopes.	CB524A	CB524-67901
5	500-sheet stapler/ stacker	Allows for high-volume output with automatic job finishing. Staples up to 15 sheets of paper.	CB522A	CB522-67901
6	500-sheet stacker	Provides an additional output bin that holds 500 sheets.	CB521A	CB521-67901
7	Stapler unit	Holds the stapler cartridge and the stapler head. Order the stapler unit if you are experiencing stapler failure and an HP-authorized service or support provider advises you to replace the unit. **NOTE:** The staple cartridge is not included with the stapler unit and must be ordered separately, when it needs to be replaced.		Q3216-60501
8	1,000-staple cartridge	Provides three staple cartridges.	Q3216A	Q3216-60500
9	HP 5-bin mailbox	Provides five output bins that you can use to sort jobs.	CB520A	CB520-67901
10	Printer stand	Provides stability when multiple optional trays are installed. The stand has casters so you can easily move the product.	CB525A	

Print cartridges

Item	Description	Product number	Part number
HP LaserJet print cartridge	10,000-page cartridge	CC364A	CC364-67901
	24,000-page cartridge	CC364X	CC364-67902

Maintenance kits

Item	Description	Product number	Part number
Preventive maintenance kit	Contains a replacement fuser, a transfer roller, a transfer-roller tool, eight feed rollers, and one pair of disposable gloves. Includes instructions for installing each component. The preventive maintenance kit is a consumable item, and its cost is not covered under the warranty or most extended warranty options.	CB388A (110 V) CB389A (220 V)	
Multipurpose tray kit (Tray 1)	Contains a pickup roller, a feed roller, and a separation roller.		CB506-67905
Product roller kit (Trays 2, 3, 4, 5, 6)	Contains a pickup roller, a feed roller, and a separation roller.		CB506-67904

Item	Description	Product number	Part number
Transfer roller kit	Contains one transfer roller.		CB506-67903
Fusing kit	Contains one fuser assembly.		CB506-67901 (110 V) CB506-67902 (220 V)

Memory

Item	Description	Product number	Part number
44 x 32-pin DDR2 memory DIMM (dual inline memory module) Boosts the ability of the product to handle large or complex print jobs.	64 MB	CC413A	CC413-67901
	128 MB	CC414A	CC414-67901
	256 MB	CC415A	CC415-67901
	512 MB	CE483A	CE483-67901

Cables and interfaces

Item	Description	Product number	Part number
Enhanced I/O (EIO) cards HP Jetdirect print server multi-protocol EIO network cards	HP High Performance Serial ATA EIO Hard Disk	J6073G	CB506-67907
	1284B parallel adaptor	J7972G	J7972-61001
	HP Jetdirect EIO wireless 690n (IPv6/IPsec)	J8007G	
	HP Jetdirect en3700	J7942G	J7942-61031
	HP Jetdirect en1700	J7988G	J7988-61001
	HP Jetdirect ew2400 USB wireless print server	J7951G	J7951-61021
	HP Jetdirect 630n EIO networking card (IPv6/gigabit)	J7997G	J7997-61001
	HP Jetdirect 635n EIO networking card (IPv6/IPsec)	J7961G	J7961-69011
USB cable	2-meter A to B cable	C6518A	

Paper

For more information about paper, go to http://www.hp.com/go/ljsupplies.

Item	Description	Product number
HP Soft Gloss laser paper For use with HP LaserJet printers. Coated paper, good for business documents with high impact, such as brochures, sales material, and documents with graphics and photographic images. Specifications: 32 lb (120 g/m^2).	Letter (220 x 280 mm), 50 sheets/box	C4179A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 50 sheets/box	C4179B/Asia-Pacific countries/regions and Europe
HP LaserJet tough paper For use with HP LaserJet printers. This satin-finish paper is waterproof and tear-proof, yet doesn't compromise on print quality or performance. Use it for signs, maps, menus, and other business applications.	Letter (8.5 x 11 inch), 50 sheets to a carton	Q1298A/North America
	A4 (210 x 297 mm), 50 sheets to a carton	Q1298B/Asia-Pacific countries/regions and Europe
HP Premium Choice LaserJet paper HP's brightest LaserJet paper. Expect spectacular color and crisp black from this paper that is extra smooth and brilliantly white. Ideal for presentations, business plans, external correspondence and other high-value documents Specifications: 98 bright, 32 lb. (75 g/m^2).	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPU1132/North America
	Letter (8.5 x 11 inch), 250 sheets/ream, 6-ream carton	HPU1732 North America
	A4 (210 x 297 mm), 5-ream carton	Q2397A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 250 sheet/ream, 5-ream carton	CHP412/Europe
	A4 (210 x 297 mm), 500 sheet/ream, 5-ream carton	CHP410/Europe
	A4 (210 x 297 mm), 160 g/m^2, 500 sheet/ream, 5-ream carton	CHP413/Europe
HP LaserJet paper For use with HP LaserJet printers. Good for letterhead, high-value memos, legal documents, direct mail, and correspondence. Specifications: 96 bright, 24 lb (90 g/m^2).	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPJ1124/North America
	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	HPJ1424/North America
	A Letter (220 x 280 mm), 500 sheets/ream, 5-ream carton	Q2398A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	Q2400A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream	CHP310/Europe

Item	Description	Product number
HP Printing paper For use with HP LaserJet and inkjet printers. Created especially for small and home offices. Heavier and brighter than copier paper. Specifications: 92 bright, 22 lb.	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPP1122/North America and Mexico
	Letter (8.5 x 11 inch), 500 sheets/ream, 3-ream carton	HPP113R/North America
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	CHP210/Europe
	A4 (210 x 297 mm), 300 sheets/ream, 5-ream carton	CHP213/Europe
HP Multipurpose paper For use with all office equipment-laser and inkjet printers, copiers, and fax machines. Created for businesses that want one paper for all their office needs. Brighter and smoother than other office papers. Specifications: 90 bright, 20 lb (75 g/m^2).	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPM1120/North America
	Letter (8.5 x 11 inch), 500 sheets/ream, 5-ream carton	HPM115R/North America
	Letter (8.5 x 11 inch), 250 sheets/ream, 12-ream carton	HP25011/North America
	Letter (8.5 x 11 inch), 3-hole, 500 sheets/ream, 10-ream carton	HPM113H/North America
	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	HPM1420/North America
HP Office paper For use with all office equipment-laser and inkjet printers, copiers, and fax machines. Good for high-volume printing. Specifications: 84 bright, 20 lb (75 g/m^2).	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPC8511/North America and Mexico
	Letter (8.5 x 11 inch), 3-hole, 500 sheets/ream, 10-ream carton	HPC3HP/North America
	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	HPC8514/North America
	Letter (8.5 x 11 inch), Quick Pack; 2,500-sheet carton	HP2500S/North America and Mexico
	Letter (8.5 x 11 inch), Quick Pack 3-hole; 2,500-sheet carton	HP2500P/North America
	A Letter (220 x 280 mm), 500 sheets/ream, 5-ream carton	Q2408A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	Q2407A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	CHP110/Europe
	A4 (210 x 297 mm), Quick Pack; 2500 sheets/ream, 5-ream carton	CHP113/Europe

Item	Description	Product number
HP Office recycled paper For use with all office equipment-laser and inkjet printers, copiers, and fax machines. Good for high-volume printing. Satisfies U.S. Executive Order 13101 for environmentally preferable products. Specifications: 84 bright, 20 lb, 30% post-consumer content.	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPE1120/North America
	Letter (8.5 x 11 inch), 3-hole, 500 sheets/ream, 10-ream carton	HPE113H/North America
	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	HPE1420/North America
HP LaserJet transparencies For use only with HP LaserJet monochrome printers. For crisp, sharp text and graphics, rely on the only transparencies specifically designed and tested to work with monochrome HP LaserJet printers. Specifications: 4.3-mil thickness.	Letter (8.5 x 11 inch), 50 sheets to a carton	92296T/North America, Asia-Pacific countries/regions, and Europe
	A4 (210 x 297 mm), 50 sheets to a carton	922296U/Asia-Pacific countries/regions and Europe

How to use the parts lists and diagrams

The figures in this chapter show the major subassemblies in the product and their component parts. A parts list table follows each exploded view assembly diagram. Each table lists the item number, the associated part number, and the description of each part. If a part is not listed in the table, then it is not a field replacement unit (FRU).

△ **CAUTION:** Be sure to order the correct part. When looking for part numbers for electrical components, pay careful attention to the voltage that is listed. Doing so will ensure that the part number selected is for the correct model.

NOTE: In this manual, the abbreviation “PCA” stands for “printed circuit-board assembly.” Components described as a PCA might consist of a single circuit board or a circuit board plus other parts, such as cables and sensors.

Customer/field-replaceable units

Part	Part number
Fusing assembly (110 V)	CB506-67901
Fusing assembly (220 V)	CB506-67902
500-sheet paper cassette	RM1-4559-000CN
Transfer roller	CB506-67903
Formatter cover (P4015/P4515)	RC2-2468-000CN
Formatter cover (P4014)	RC2-5757-000CN
Formatter (P4014, base model)	CB437-69001
Formatter (network models)	CB438-69001
Option cover	RC2-2459-000CN
Face-up tray assembly (P4015/4515)	RMI-4531-000CN
Face-up tray assembly (P4014)	RMI-5448-000CN
Paper pickup roller	RM1-0036-000CN
Paper feed roller	RM1-0037-020CN
Feed roller (separation roller)	RMI-4571-000CN
Cassette torque limiter	RC2-5262-000CN
Duplexing outer cover (P4015/4515)	RC2-2510-000CN
Duplexing outer cover (P4014)	RC2-5760-000CN
Envelope cover	RL1-1667-000CN
Envelope connector cover (P4015/4515)	RC2-2476-000CN
Envelope connector cover (P4014)	RC2-5759-000CN
Optional 500-sheet feeder (plus tray)	CB518-67901
Optional envelope feeder	CB524-67901
Optional duplex accessory	CB519-67901
Optional 500-sheet stacker	CB521-67901
Optional 500-sheet stapler/stacker	CB522-67901
Optional 1,500-sheet feeder	CB523-67901
Optional 5-bin mailbox	CB520-67901
Optional printer stand	CB525A
Tray 1 feed roller	RL1-1663-000CN
Tray 1 pickup roller	RL1-1641-000CN
Tray 1 separation roller	RL1-1654-000CN
Legal tray cover (P4015/4515)	RC2-5239-000CN
Legal tray cover (P4014)	RC2-5761-000CN

Part	Part number
Control-panel overlay (P4015/4515)	CB509-60102 (French/Spanish)
	CB509-60103 (German/French/Italian)
	CB509-60104 (Norwegian/Swedish/Finnish/Estonian/Latvian/Lithuanian)
	CB509-60105 (German/French/Italian/Spanish/Portuguese/Dutch/Catalan)
	CB509-60106 (Czech/Hungarian/Polish/Slovak/Croatian/Romanian/Serbian)
	CB509-60107 (Russian/Ukrainian/Bulgarian/Kazakh/Turkish/Greek)
Control-panel overlay (P4014)	CB508-60102 (French/Spanish)
	CB508-60103 (German/French/Italian)
	CB508-60104 (Norwegian/Swedish/Finnish/Estonian/Latvian/Lithuanian)
	CB508-60105 (German/French/Italian/Spanish/Portuguese/Dutch/Catalan)
	CB508-60106 (Czech/Hungarian/Polish/Slovak/Croatian/Romanian/Serbian)
	CB508-60107 (Russian/Ukrainian/Bulgarian/Kazakh/Turkish/Greek)
Maintenance kit	CB388A (110 V)
	CB389A (220 V)
Memory	CC413-67901 (64 MB)
	CC414-67901 (128 MB)
	CC415-67901 (256 MB)
	CC483-67901 (512 MB)
EIO hard disk drive (20 GB)	CB506-67907
USB cable (2-meter, A to B)	C6518A
EIO card 1248B parallel adaptor	J7972G
JetDirect EIO wireless 690n (IPv6/IPsec)	J8007G
JetDirect EIO en3700	J7942G
JetDirect EIO en1700	J7988G
JetDirect EIO en2400 USB wireless	J7951G
JetDirect 630n EIO networking card (IPv6/IPsec)	J7997G
JetDirect 635n EIO networking card	J7961G
1,000-staple cartridge	Q3216-60500
Print cartridge	CC364-67901 (10,000 pages)
	CC364-67902 (24,000 pages)

Assembly locations

Figure 8-2 Assembly locations—base unit

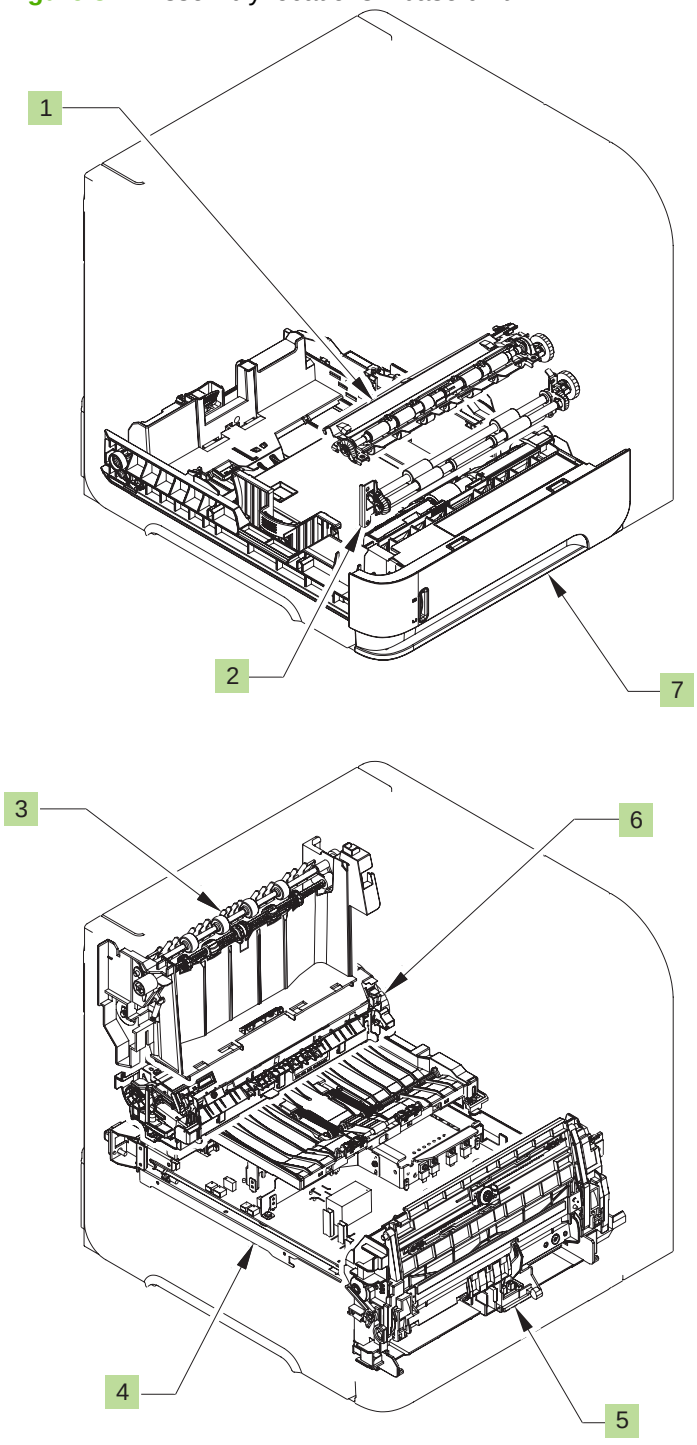


Table 8-1 Assembly locations—base unit

Ref.	Description	Details
1	Registration assembly	See Figure 8-6 Internal components (1 of 3) on page 358.

Table 8-1 Assembly locations—base unit (continued)

Ref.	Description	Details
2	Paper feed roller assembly	See Figure 8-6 Internal components (1 of 3) on page 358.
3	Paper delivery assembly	See Figure 8-12 Paper delivery assembly on page 380.
4	Power supply assembly	See Figure 8-9 Power supply assembly on page 370.
5	Multipurpose tray (Tray 1) pickup assembly	See Figure 8-11 Multipurpose pickup assembly on page 376.
6	Fuser assembly	See Figure 8-13 Fusing assembly on page 382.
7	500-sheet cassette (Tray 2)	See Figure 8-10 500-sheet cassette on page 372.

Figure 8-3 Assembly location—optional 500-sheet paper feeder

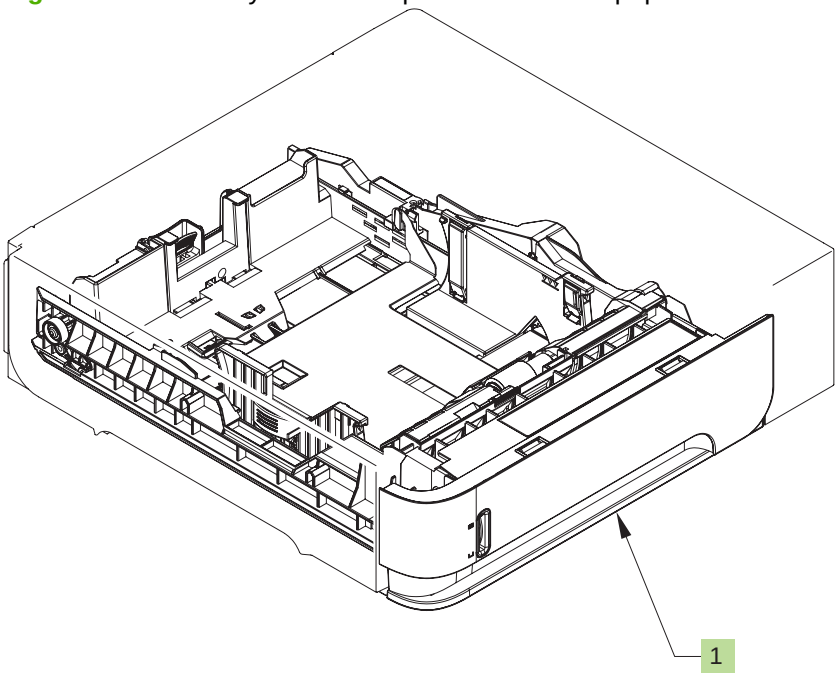


Table 8-2 Assembly location—optional 500-sheet paper feeder

Ref.	Description	Details
1	Optional 500-sheet paper feeder	See Input devices on page 392.

Figure 8-4 Assembly locations—optional 1,500-sheet paper feeder

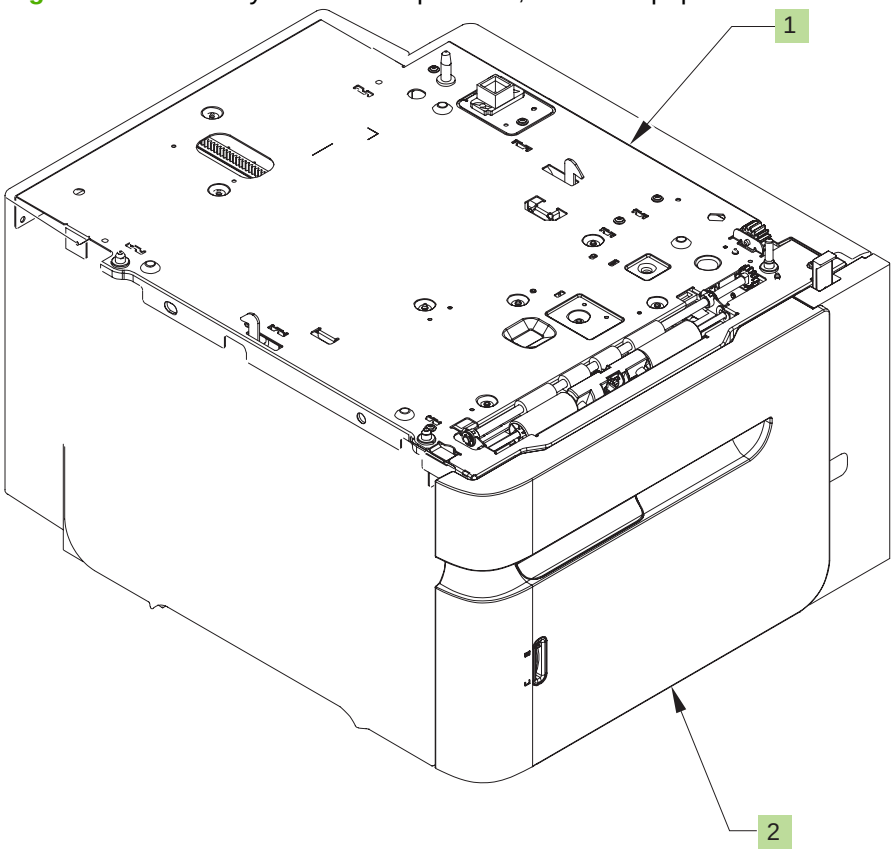


Table 8-3 Assembly locations—optional 1,500-sheet paper feeder

Ref.	Description	Details
1	Paper pickup assembly	See Figure 8-23 Optional 1,500-sheet feeder paper pickup assembly on page 412.
2	Front door assembly	See Figure 8-20 Optional 1,500-sheet feeder front door assembly on page 402.

Covers

Figure 8-5 Covers—base unit

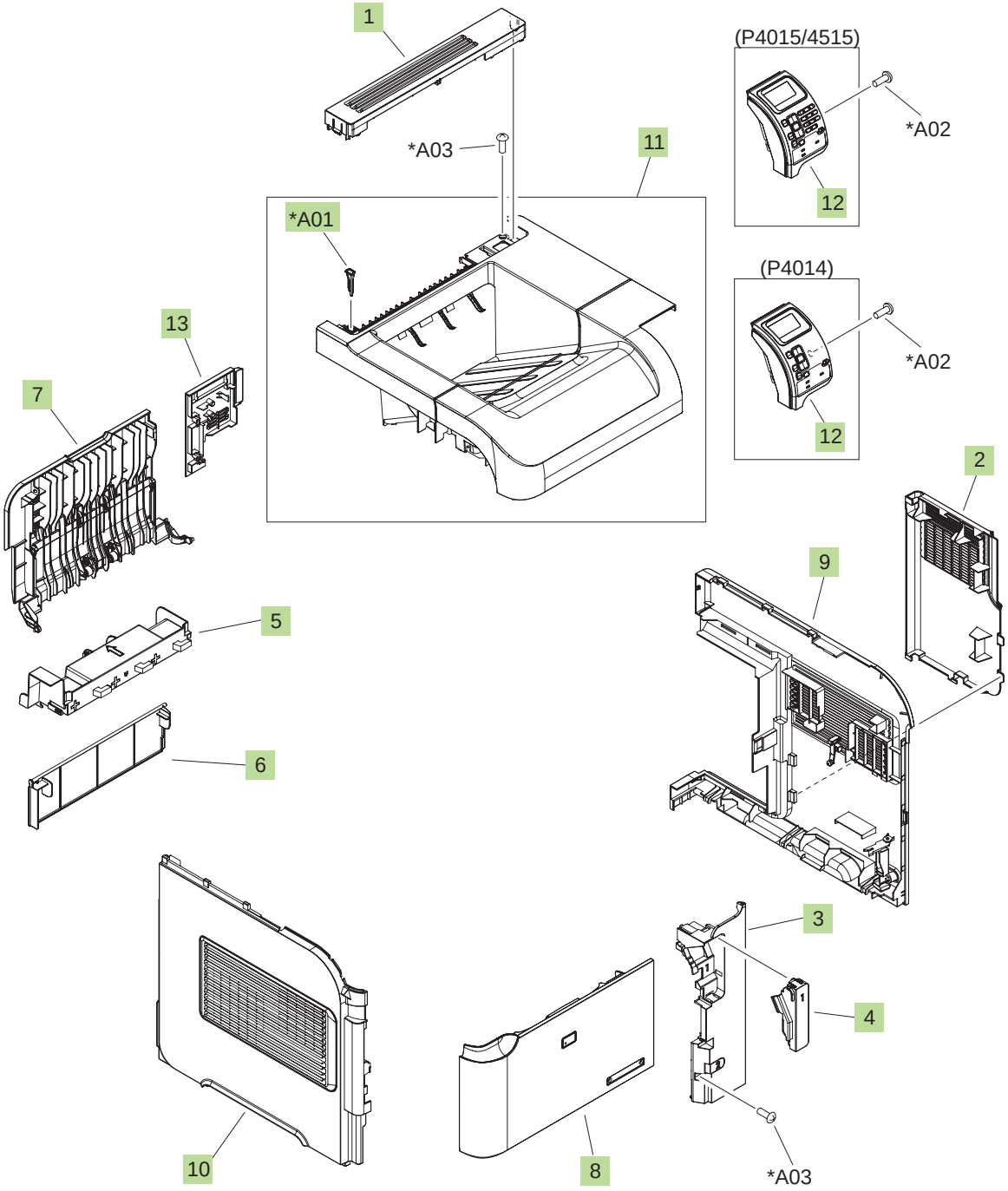


Table 8-4 Covers—base unit

Ref	Description	Part number	Qty
1	Cover, option	RC2-2459-000CN	1
2	Cover, formatter (P4015/P4515)	RC2-2468-000CN	1
2	Cover, formatter (P4014)	RC2-5757-000CN	1
3	Cover, right front (P4015/P4515)	RC2-2475-000CN	1
3	Cover, right front (P4014)	RC2-5758-000CN	1
4	Cover, envelope connector (P4015/P4515)	RC2-2476-000CN	1
4	Cover, envelope connector (P4014)	RC2-5759-000CN	1
5	Cover, duplexing outer (P4015/P4515)	RC2-2510-000CN	1
5	Cover, duplexing outer (P4014)	RC2-5760-000CN	1
6	Cover, legal (P4015/P4515)	RC2-5239-000CN	1
6	Cover, legal (P4014)	RC2-5761-000CN	1
7	Face-up tray assembly (P4015/P4515)	RM1-4531-000CN	1
7	Face-up tray assembly (P4014)	RM1-5448-000CN	1
8	Front cover assembly	RM1-4534-000CN	1
9	Right cover assembly (P4015/P4515)	RM1-4550-000CN	1
9	Right cover assembly (P4014)	RM1-5449-000CN	1
10	Left cover assembly (P4015/P4515)	RM1-4551-000CN	1
10	Left cover assembly (P4014)	RM1-5450-000CN	1
11	Top cover assembly (P4015/P4515)	RM1-4552-000CN	1
11	Top cover assembly (P4014)	RM1-5250-000CN	1
12	Control panel assembly (P4015/P4515)	RM1-5059-000CN	1
12	Control panel assembly (P4014)	RM1-5060-000CN	1
13	Cover, right rear (P4015/P4515)	RC2-2478-000CN	1
13	Cover, right rear (P4014)	RC2-5768-000CN	1
A01	Pin, option	RC1-0306-000CN	1
A02	Screw, tapping, pan head, M4x10		3
A03	Screw, D, M3x8		6

[1] Only orderable parts have part numbers.

Internal components

Figure 8-6 Internal components (1 of 3)

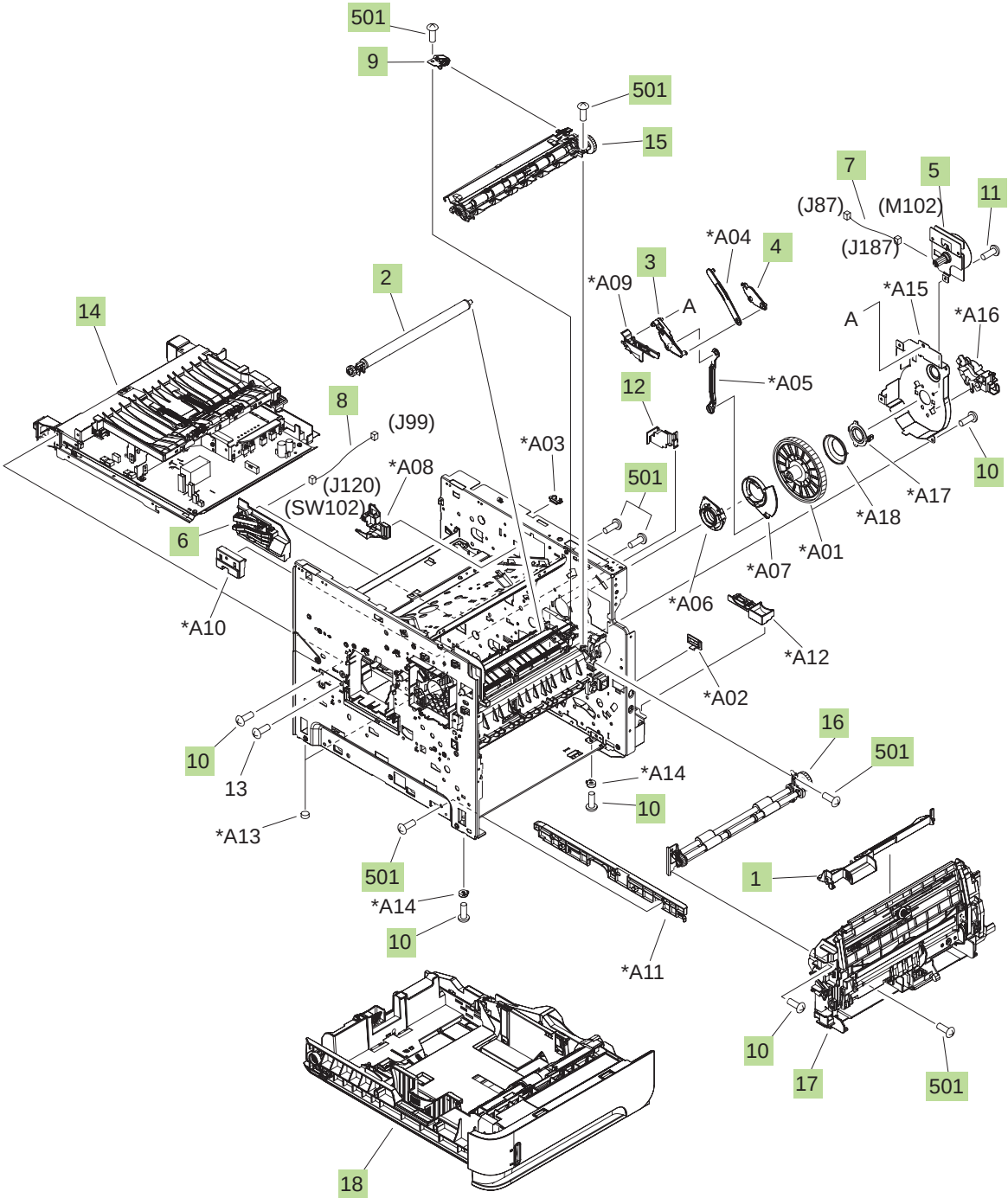


Table 8-5 Internal components (1 of 3)

Ref	Description	Part number	Qty
1	Cover, envelope	RL1-1667-000CN	1
2	Transfer roller assembly	CB506-67903	1
3	Arm, release, A	RC2-2480-000CN	1
4	Arm, release, B	RC2-2481-000CN	1
5	Motor, DC, 24 V, drum drive	RL1-1659-000CN	1
6	Size detect assembly	RM1-4525-000CN	1
7	Cable, drum motor	RM1-5090-000CN	1
8	Cable, size sensor	RM1-5091-000CN	1
9	Grounding plate assembly	RM1-5461-000CN	1
10	Screw, D, M3x8	XA9-1671-000CN	18
11	Screw, tap, M3x6	XA9-1503-000CN	3
12	Guide, connecting cable	RC1-0386-000CN	1
13	Screw, M4x5		2
14	Power-supply assembly, 110-127 V (see Figure 8-9 Power supply assembly on page 370)		1
14	Power-supply assembly, 220-240 V (see Figure 8-9 Power supply assembly on page 370)		1
15	Registration assembly	RM1-5460-000CN	1
16	Paper feed roller assembly	RM1-4527-000CN	1
17	Multipurpose tray pickup assembly	RM1-4563-000CN	1
18	500-sheet tray cassette	RM1-4559-000CN	1
501	Screw, tapping, pan head, M4x10	XB4-7401-007CN	24
A01	Gear, 193T		1
A02	Guard, edge		1
A03	Clamp, cord		1
A04	Rod, release, upper		1
A05	Rod, release, lower		1
A06	Guide, gear shift, A		1
A07	Guide, gear shift, B		1
A08	Guide, scanner cable		1
A09	Guide, gear		1
A10	Guide, cassette right, rear		1
A11	Guide, cassette left, rear		1
A12	Support, power supply switch		1
A13	Foot		2

Table 8-5 Internal components (1 of 3) (continued)

Ref	Description	Part number	Qty
A14	Spacer, frame		2
A15	Side plate, drum drive		1
A16	Cap, drum gear		1
A17	Bushing		1
A18	Spring, compression		1

[1] Only orderable parts have part numbers.

Figure 8-7 Internal components (2 of 3)

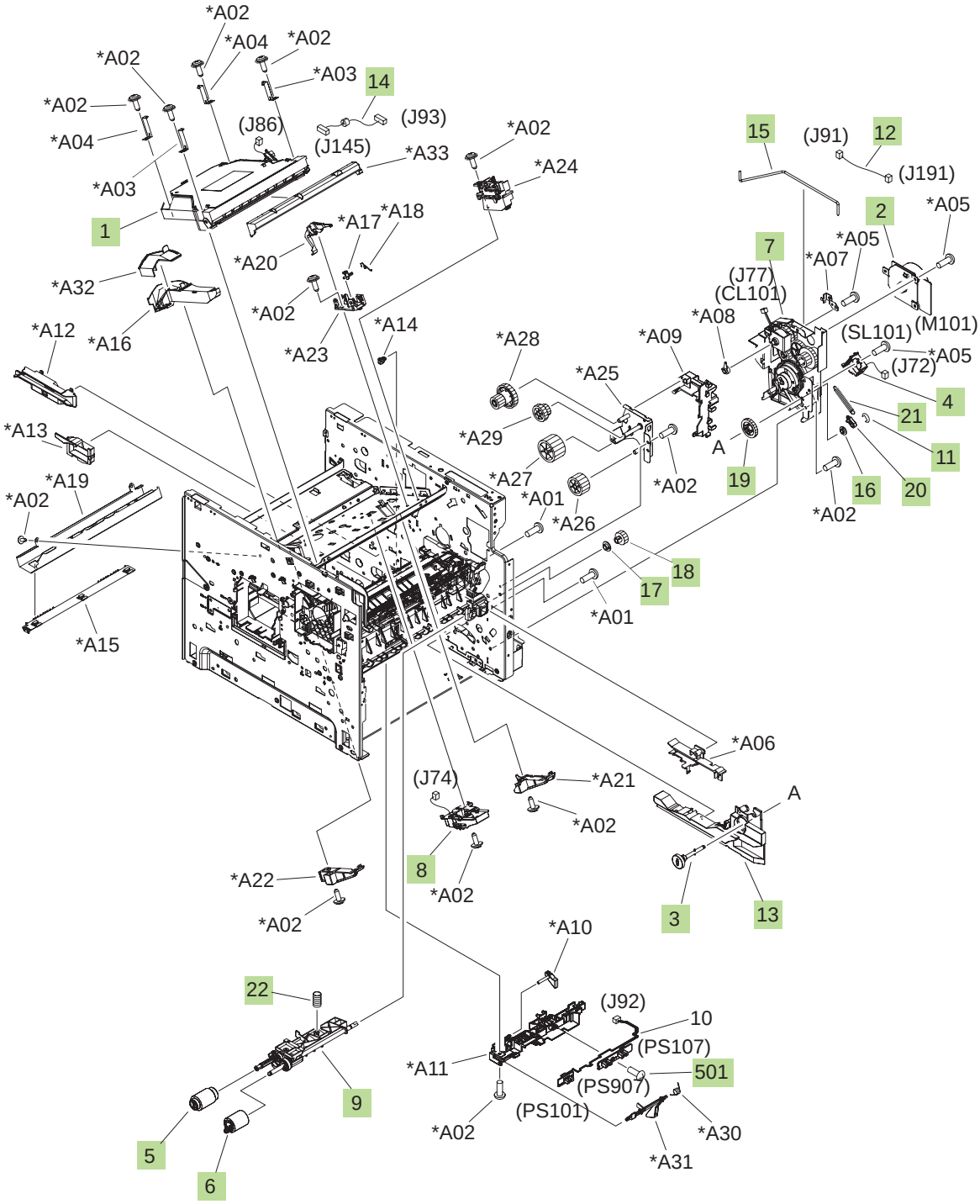


Table 8-6 Internal components (2 of 3)

Ref	Description	Part number	Qty
1	Laser scanner assembly	RM1-5465-000CN	1
2	Motor, DC, 24 V, main drive	RL1-1657-000CN	1
3	Shaft, retard drive	RL1-1658-000CN	1
4	Solenoid	RK2-0270-000CN	1
5	Paper pickup roller assembly	RM1-0036-020CN	1
6	Paper feed roller assembly	RM1-0037-020CN	1
7	Paper pickup drive assembly	RM1-4532-000CN	1
8	Tag holder assembly	RM1-4539-000CN	1
9	Paper feed shaft Z assembly	RM1-4562-000CN	1
10	Feeder sensor cable assembly		1
11	Ring, E	XD9-0232-000CN	1
12	Cable, feed motor	RM1-5089-000CN	1
13	Right front guide assembly	RM1-4576-000CN	1
14	Cable, laser	RM1-5087-000CN	1
15	Rod, switch	RC2-2667-000CN	1
16	Bushing	RC1-0206-000CN	1
17	Bushing, feed shaft	RC1-0264-000CN	1
18	Gear, 18T	RU5-0045-020CN	1
19	Gear, 23T	RU6-0159-000CN	1
20	Bushing	RC2-5783-000CN	2
21	Spring, tension	RU6-2115-000CN	2
22	Spring, compression	RC1-0213-000CN	1
501	Screw, tap, binding head, M3x8	XB4-7300-809CN	2
A01	Screw, tap, pan head, M4x10		1
A02	Screw, D, M3x8		28
A03	Spacer, scanner, front		1
A04	Spacer, scanner, rear		1
A05	Screw, tap, M3x6		10
A06	Guide, front		1
A07	Support, DCU		1
A08	Bushing		1
A09	Guide, cable, right front		1
A10	Lever, height prevention		1
A11	Holder, sheet sensor		1

Table 8-6 Internal components (2 of 3) (continued)

Ref	Description	Part number	Qty
A12	Guide, EPU, rear		1
A13	Clip, cable		1
A14	Saddle, wire		1
A15	Guide, lower		1
A16	Duct, scanner protective, 1		1
A17	Flag, shutter		1
A18	Spring, torsion		1
A19	Plate, RW crossmember		1
A20	Lever, lens		1
A21	Stopper, C right (P4015/P4515)		1
A21	Stopper, C right (P4014)		1
A22	Stopper, C left (P4015/P4515)		1
A22	Stopper, C left (P4014)		1
A23	Mount, lever		1
A24	Right stopper assembly		1
A25	Side plate, paper feed drive		1
A26	Gear, 29T		1
A27	Gear, 35T		1
A28	Gear, 37T/18T		1
A29	Gear, 17T/25T		1
A30	Spring, torsion		1
A31	Flag, paper presence detect		1
A32	Lid, scanner protective duct		1
A33	Duct, scanner protective, 2		1

[1] Only orderable parts have part numbers.

Figure 8-8 Internal components (3 of 3)

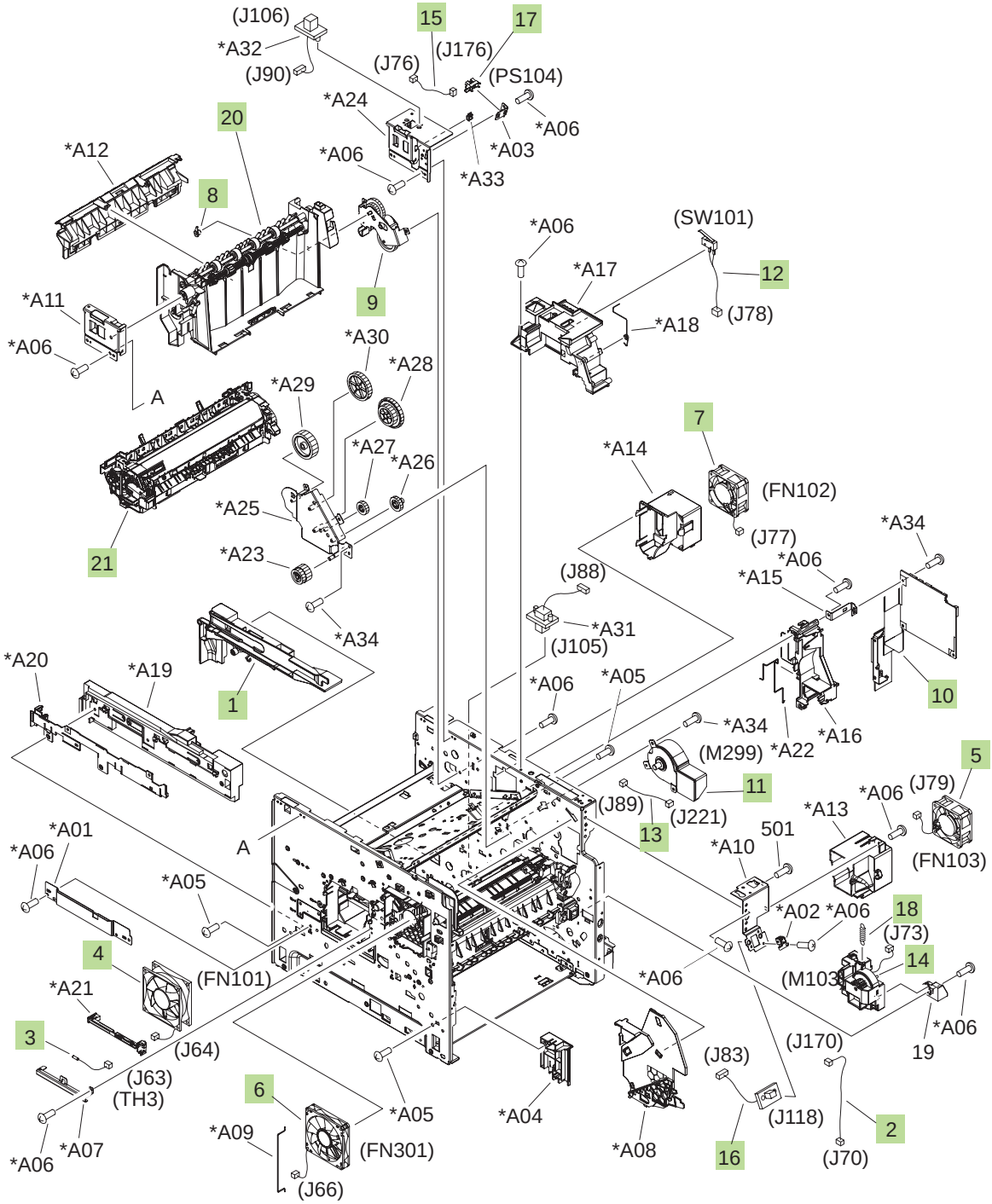


Table 8-7 Internal components (3 of 3)

Ref	Description	Part number	Qty
1	Right guide assembly (P4015/P4515)	RM1-4558-000CN	1
1	Right guide assembly (P4014)	RM1-5451-000CN	1
2	Cable, panel	RM1-5082-000CN	1
3	Thermistor unit	RK2-0359-000CN	1
4	Fan	RK2-1988-000CN	1
5	Fan	RK2-1989-000CN	1
6	Fan	RK2-1991-000CN	1
7	Fan	RK2-1992-000CN	1
8	Bushing, paper delivery	RC1-0136-000CN	1
9	Paper delivery drive assembly	RM1-4526-000CN	1
10	DC controller PCA	RM1-4582-000CN	1
11	Fuser motor assembly	RM1-5051-000CN	1
12	Cable, door switch	RM1-5080-000CN	1
13	Cable, fuser motor	RM1-5088-000CN	1
14	Lifter drive assembly	RM1-4585-000CN	1
15	Cable, full sensor	RM1-5081-000CN	1
16	Cable, envelope feeder	RM1-5085-000CN	1
17	IC, photo interrupter	WG8-5624-000CN	1
18	Spring, tension	RC1-0198-000CN	1
19	Support, lifter drive assembly		1
20	Paper delivery assembly (also see Figure 8-12 Paper delivery assembly on page 380)	RM1-4529-000CN	1
21	Fuser assembly (110-127 V) (also see Figure 8-13 Fusing assembly on page 382)	CB506-67901	1
21	Fuser assembly (220-240 V) (also see Figure 8-13 Fusing assembly on page 382)	CB506-67902	1
501	Screw, with washer, M3x6	XB2-7300-607CN	2
A01	Cover, connector		1
A02	Case, envelope		1
A03	Holder, sensor		1
A04	Front cassette LF guide assembly		1
A05	Screw, tap, pan head, M4x10		6
A06	Screw, D, M3x8		28
A07	Holder, sensor		1
A08	Guide, cartridge, right		1
A09	Rod, third fan		1

Table 8-7 Internal components (3 of 3) (continued)

Ref	Description	Part number	Qty
A10	Crossmember, front		1
A11	Crossmember, option, left		1
A12	Guide, rear		1
A13	Duct, second fan		1
A14	Duct, fourth fan		1
A15	Holder, DCU		1
A16	Guide, flat flexible cable		1
A17	Holder, check pin		1
A18	Spring, grounding		1
A19	Guide, left		1
A20	Guide, left, upper		1
A21	Holder, sensor		1
A22	Rod, din board		1
A23	Gear, 23T/19T		1
A24	Crossmember, option, right		1
A25	Side plate, fuser drive		1
A26	Gear, 17T		1
A27	Gear, 15T		1
A28	Gear, 25T/91T		1
A29	Gear, 33T		1
A30	Gear 35T		1
A31	Cable, option feeder		1
A32	Cable, OPT DEL		1
A33	Clamp, cable		1
A34	Screw, tap, M3x6		5

[1] Only orderable parts have part numbers.

Figure 8-9 Power supply assembly

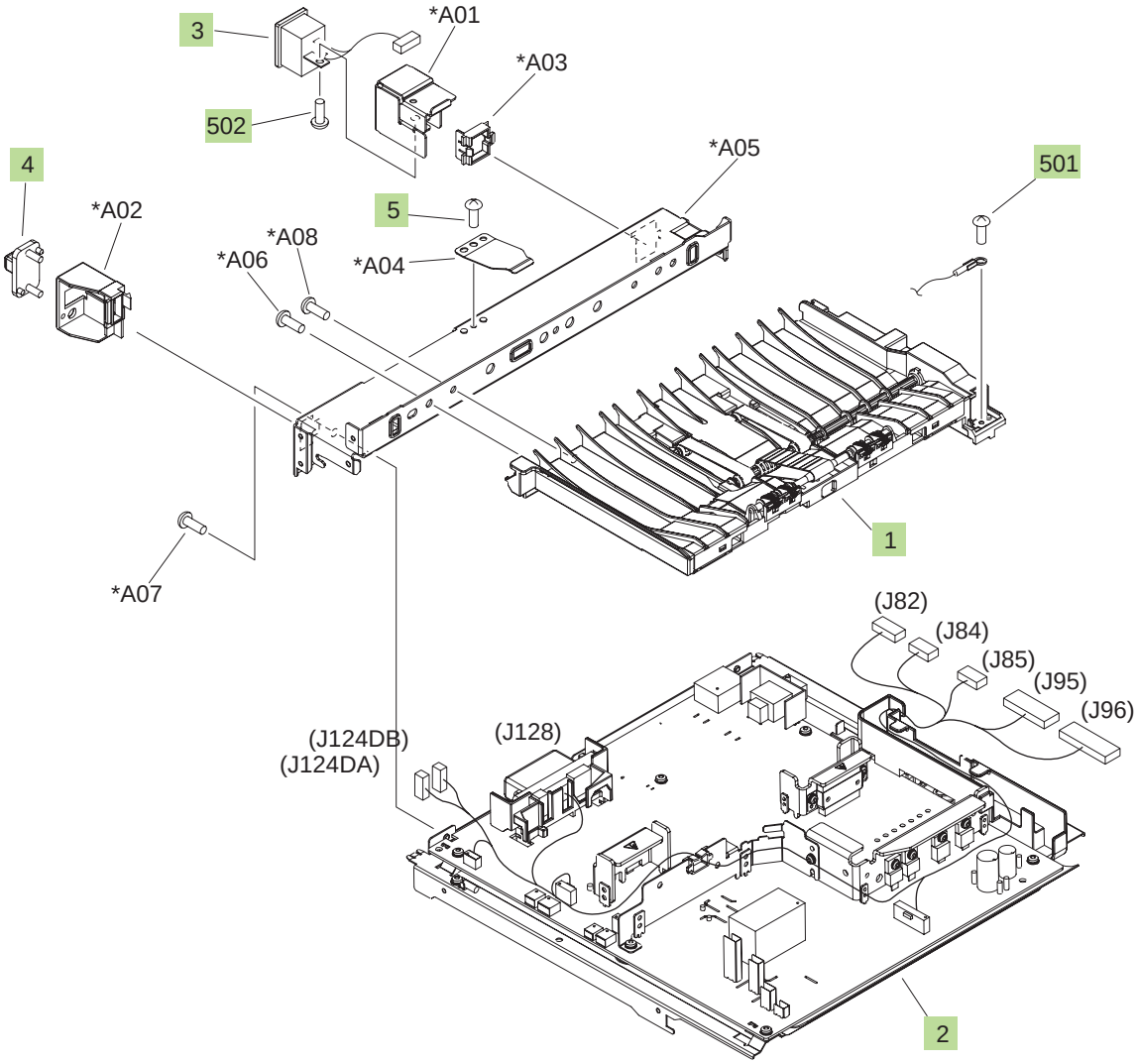


Table 8-8 Power supply assembly

Ref	Description	Part number	Qty
1	Paper feed assembly	RM1-4548-000CN	1
2	Electrical components assembly (110-127 V)	RM1-4549-000CN	1
2	Electrical components assembly (220-240 V)	RM1-4578-000CN	1
3	Cable, inlet (110-127 V)	RM1-5078-000CN	1
3	Cable, inlet (220-240 V)	RM1-5079-000CN	1
4	Connector, drawer, 6P	VS1-7514-006CN	1
5	Screw, flat head RS, M3x6	XA9-1464-000CN	1
501	Screw, machine, pan head, M3x6	XB1-1300-605CN	1
502	Screw, with washer, M4x6	XB2-7400-606CN	1
A01	Holder, inlet		1
A02	Holder, connector		1
A03	Guard, edge		1
A04	Spring, leaf		1
A05	Crossmember, fusing		1
A06	Screw, tap, pan head, M4x10		2
A07	Screw, D, M3x8		3
A08	Screw, with washer, M3x6		3

[1] Only orderable parts have part numbers.

Figure 8-10 500-sheet cassette

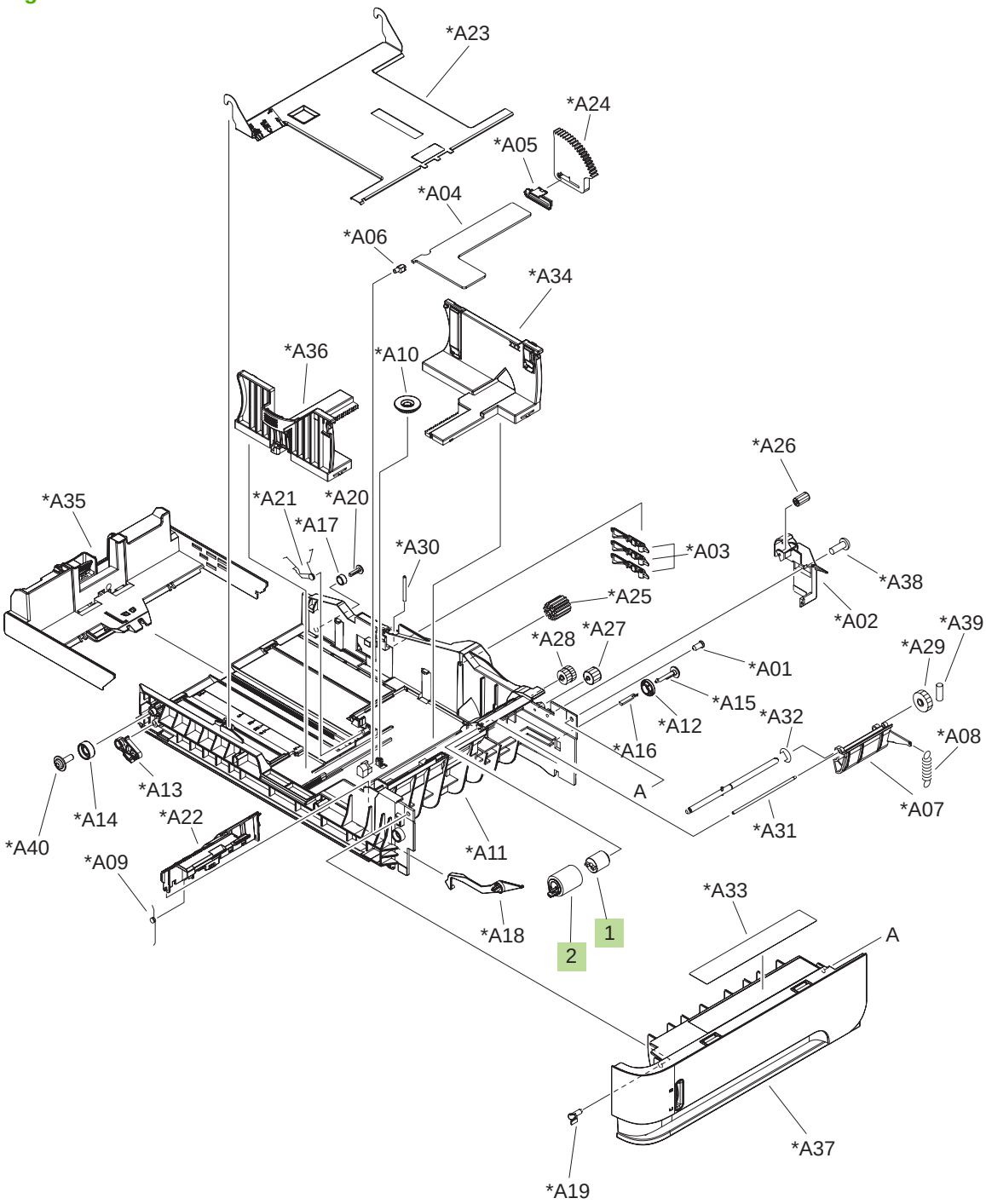


Table 8-9 500-sheet cassette

Ref	Description	Part number	Qty
	500-sheet cassette	RM1-4559-000CN	1
1	Limiter, cassette torque	RC2-5262-000CN	1
2	Paper feed roller assembly	RM1-0037-020CN	1
A01	Pin, front guide lock, right		1
A02	Cover, gear		1
A03	Flag, size sensing		1
A04	Arm, lifter		1
A05	Support, lifter arm		1
A6	Bushing, lift arm		1
A07	Holder, retard gear		1
A08	Spring, tension		1
A09	Spring, tension		1
A10	Gear, 20T		1
A11	Body, cassette		1
A12	Roller, positioning		1
A13	Claw, cassette		1
A14	Roller, LU		1
A15	Flange, positioning roller, right		1
A16	Shaft, positioning roller auxiliary		1
A17	Roller, RD		1
A18	Gauge, fuel		1
A19	Pin, cassette lock, left		1
A20	Shaft, RD roller		1
A21	Spring, torsion		1
A22	Guide, nip		1
A23	Plate, paper lifting		1
A24	Gear, 88T		1
A25	Gear, 14T		1
A26	Gear, 14T		1
A27	Gear, 14T		1
A28	Gear, 15T/25T		1
A29	Gear, 37T		1
A30	Shaft, size sensing		1
A31	Shaft, retard gear holder		1

Table 8-9 500-sheet cassette (continued)

Ref	Description	Part number	Qty
A32	Ring, E		1
A33	Label, cassette operation		1
A34	Right side end support assembly		1
A35	Cassette rear assembly		1
A36	Left side end support assembly		1
A37	Front cassette assembly		1
A38	Screw, tap, pan head, M4x10		1
A39	Pin, dowel		1
A40	Screw, tap, M4x12		1

[1] Only orderable parts have part numbers.

Figure 8-11 Multipurpose pickup assembly

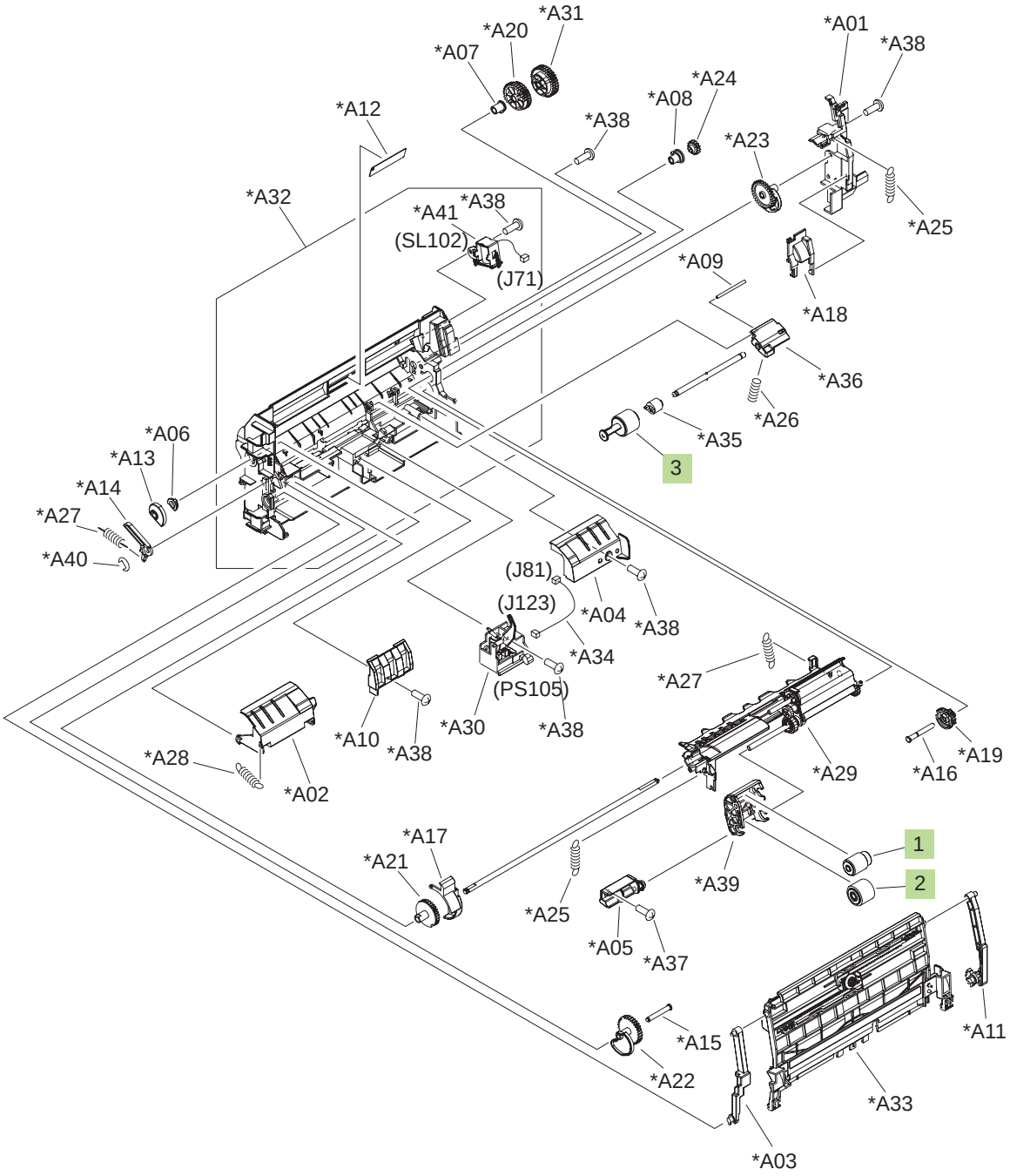


Table 8-10 Multipurpose pickup assembly

Ref	Description	Part number	Qty
	Multipurpose pickup assembly	RM1-4563-000CN	1
	Multipurpose tray kit (contains 1 pickup roller, 1 feed roller, 1 separation roller)	CB506-67905	1
1	Roller, pickup	RL1-1641-000CN	1
2	Roller, feed	RL1-1663-000CN	1
3	Roller, separation	RL1-1654-000CN	1
A01	Frame, multi, right		1
A02	Guide, nip, left		1
A03	Guide, nip, center		1
A04	Guide, nip, right		1
A05	Bushing		1
A6	Bushing		1
A07	Bushing		1
A08	Bushing		1
A09	Shaft, size sensing		1
A10	Hinge, multi, left		1
A11	Hinge, multi, right		1
A12	label, jam clear envelope		1
A13	Cam		1
A14	Lever		1
A15	Shaft, multipurpose cam, left		1
A16	Shaft, multipurpose cam, right		1
A17	Cover, multipurpose spring, left		1
A18	Cover, multipurpose spring, right		1
A19	Gear, 15T/21T		1
A20	Gear, 30T/34T		1
A21	Gear, 30T		1
A22	Cam/gear, 30T		1
A23	Cam/gear, 30T		1
A24	Gear, 14T		1
A25	Spring, tension		2
A26	Spring, compression		1
A27	Spring, tension		2
A28	Spring, tension		1
A29	Multipurpose guide assembly		1

Table 8-10 Multipurpose pickup assembly (continued)

Ref	Description	Part number	Qty
A30	Presence sensor holder assembly		1
A31	Multipurpose pickup gear assembly		1
A32	Multipurpose frame assembly		1
A33	Multipurpose tray assembly		1
A34	Cable, multipurpose sensor		1
A35	Limiter, multipurpose torque		1
A36	Holder, separation		1
A37	Screw, D, M3x8		1
A38	Screw, tap, pan head, M4x10		7
A39	Cover, roller		1
A40	Ring, E		1
A41	Multipurpose solenoid assembly		1

[1] Only orderable parts have part numbers.

Figure 8-12 Paper delivery assembly

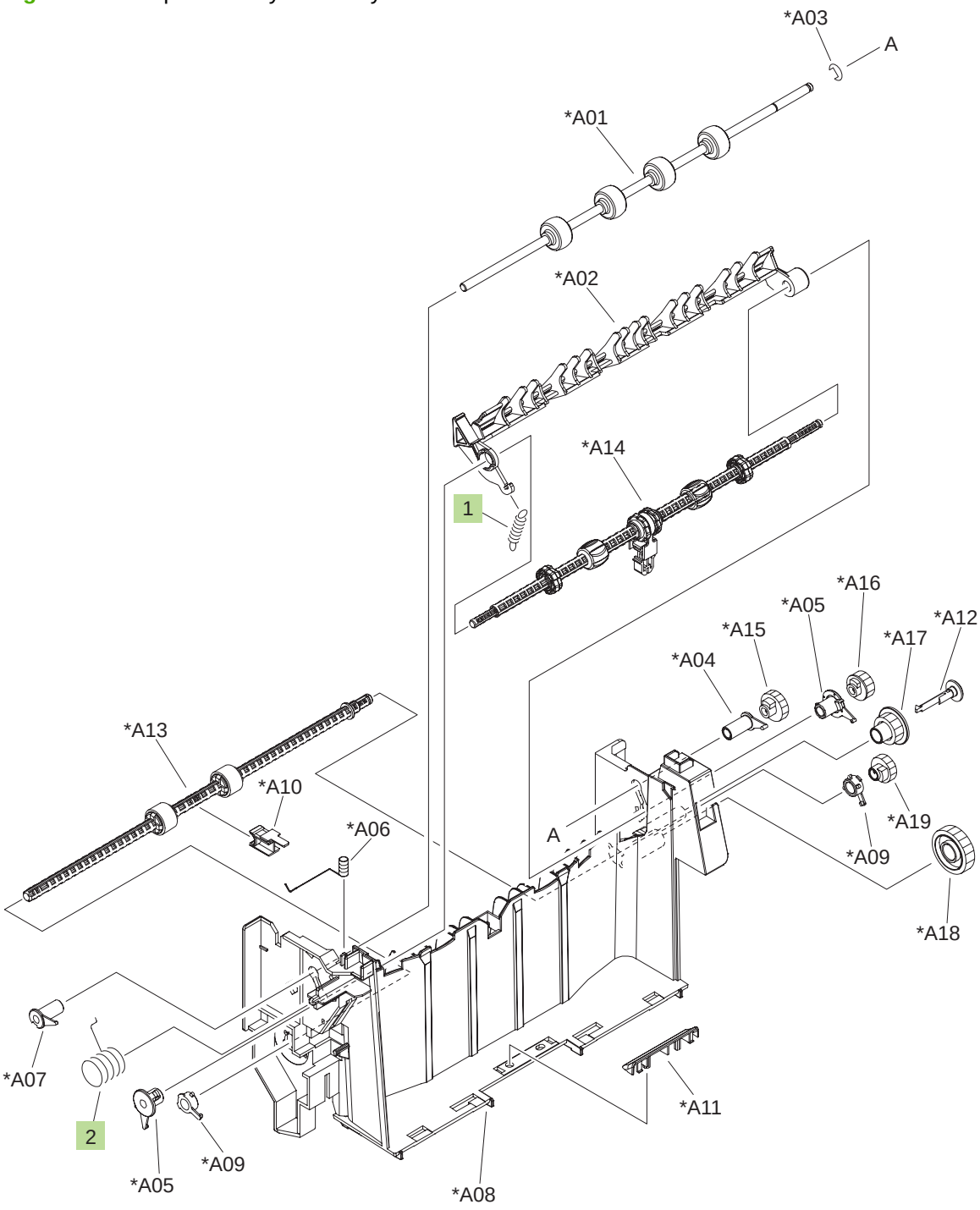


Table 8-11 Paper delivery assembly

Ref	Description	Part number	Qty
	Paper delivery assembly	RM1-4529-000CN	1
1	Spring, tension	RC1-0133-000CN	1
2	Spring, grounding	RU6-2105-000CN	1
A01	Roller, face-down, upper		1
A02	Deflector, delivery		1
A03	Ring, E		1
A04	Bushing, paper delivery, upper		1
A05	Bushing		2
A6	Spring, grounding		1
A07	Bushing, paper delivery, upper		1
A08	Frame, face-down		1
A09	Bushing		2
A10	Bushing		1
A11	Guide, paper delivery		1
A12	Flange, positioning roller, right		1
A13	Roller, delivery intermediate		1
A14	Roller, face-down, lower		1
A15	Gear, 21T		1
A16	Gear, 17T		1
A17	Gear, 20T		1
A18	Gear, 33T		1
A19	Gear, 18T		1

[1] Only orderable parts have part numbers.

Figure 8-13 Fusing assembly

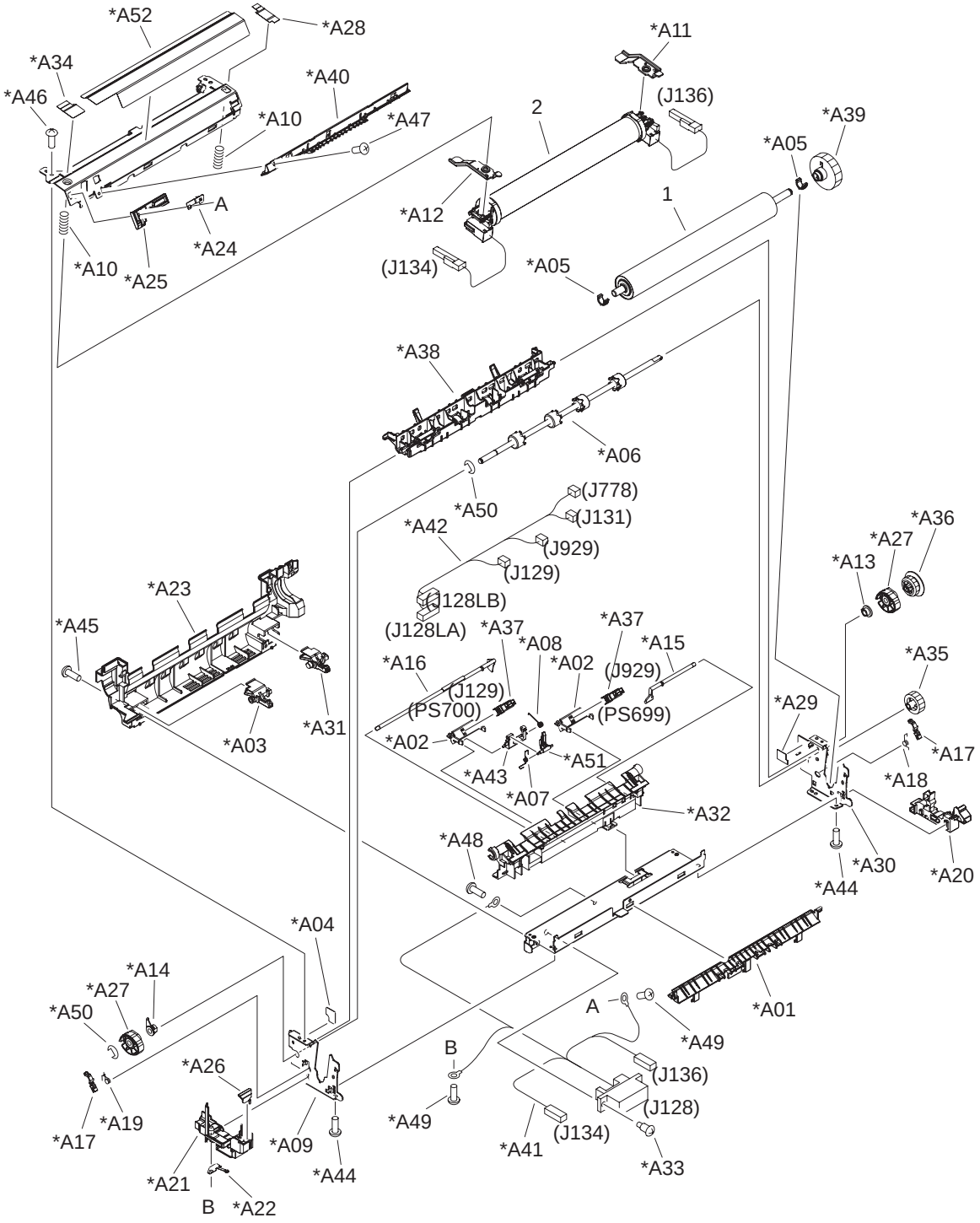


Table 8-12 Fusing assembly

Ref	Description	Part number	Qty
	Fusing assembly (110-127 V)	CB506-67901	1
	Fusing assembly (220-240 V)	CB506-67902	1
1	Roller, pressure		1
2	Sleeve guide assembly (110-127 V)		1
2	Sleeve guide assembly (220-240 V)		1
A01	Guide, paper inlet, lower		1
A02	Holder, fusing sensor		2
A03	Lever, release, left		1
A04	Sheet, fusing protective		1
A05	Bushing		2
A6	Roller, face-up		1
A07	Spring, torsion		1
A08	Spring, torsion		1
A09	Side plate, fusing, left		1
A10	Spring, compression		2
A11	Plate, pressure, right		1
A12	Plate, pressure, left		1
A13	Bushing		1
A14	Bushing		1
A15	Flag, sensor, right		1
A16	Flag, sensor, left		1
A17	Lever, sensor		2
A18	Spring, torsion		1
A19	Spring, torsion		1
A20	Guide, cable, right		1
A21	Guide, cable, left		1
A22	Spring, leaf		1
A23	Bar, filter, rear		1
A24	Eliminator		1
A25	Holder, brush		1
A26	Rib, cable guide		1
A27	Cam		2
A28	Sheet, protective, right upper		1
A29	Sheet, protective, right lower		1

Table 8-12 Fusing assembly (continued)

Ref	Description	Part number	Qty
A30	Side plate, fusing, right		1
A31	Lever, release, right		1
A32	Guide, paper delivery, lower		1
A33	Screw, stepped		2
A34	Sheet, protective, left		1
A35	Gear, 18T		1
A36	Gear, 17T		1
A37	IC, photo interrupter		2
A38	Guide, paper delivery guide, upper		1
A39	Pressure roller gear assembly		1
A40	Upper entrance guide assembly		1
A41	Cable, FSR AC		1
A42	Cable, FSR DC		1
A43	Holder, fusing lever		1
A44	Screw, M3x8		4
A45	Screw, RS, M3x8		2
A46	Screw, D, M3x8		2
A47	Screw with washer, M3x6		1
A48	Screw with washer, M3x6		1
A49	Screw, tap, S		2
A50	Ring, E		2
A51	Lever, paper delivery sensor		1
A52	Label, “Caution, high temp.”		1

[1] Only orderable parts have part numbers.

PCAs

Figure 8-14 PCAs—base unit

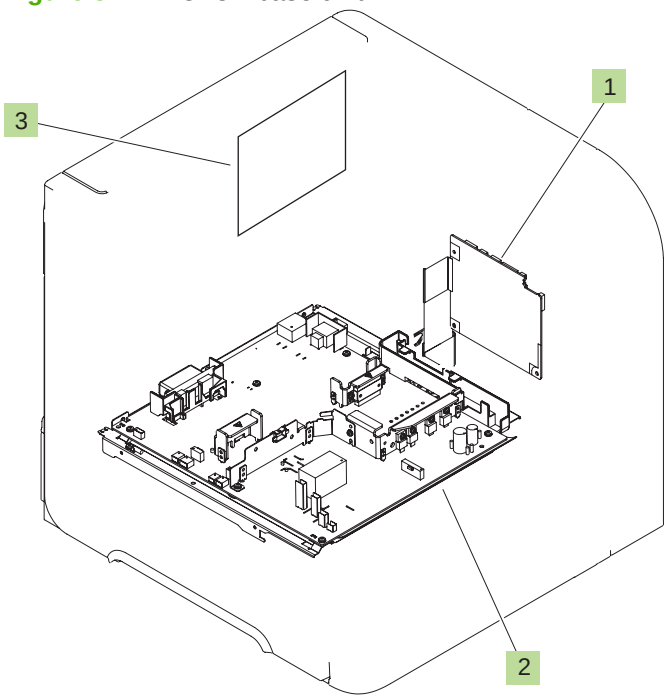


Table 8-13 PCAs—base unit

Ref	Description	Part number	Qty
1	DC controller PCA	RM1-4582-000CN	1
2	Electrical components assembly (110-127 V)	RM1-4549-000CN	1
2	Electrical components assembly (220-240 V)	RM1-4578-000CN	1
3	Formatter assembly (base models)	CB437-69001 (exchange)	1
3	Formatter assembly (network models)	CB438-69001 (exchange)	1
3	Formatter assembly (base models)	CB437-67901 (new)	1
3	Formatter assembly (network models)	CB438-67901 (new)	1

Figure 8-15 Optional 1,500-sheet feeder PCA

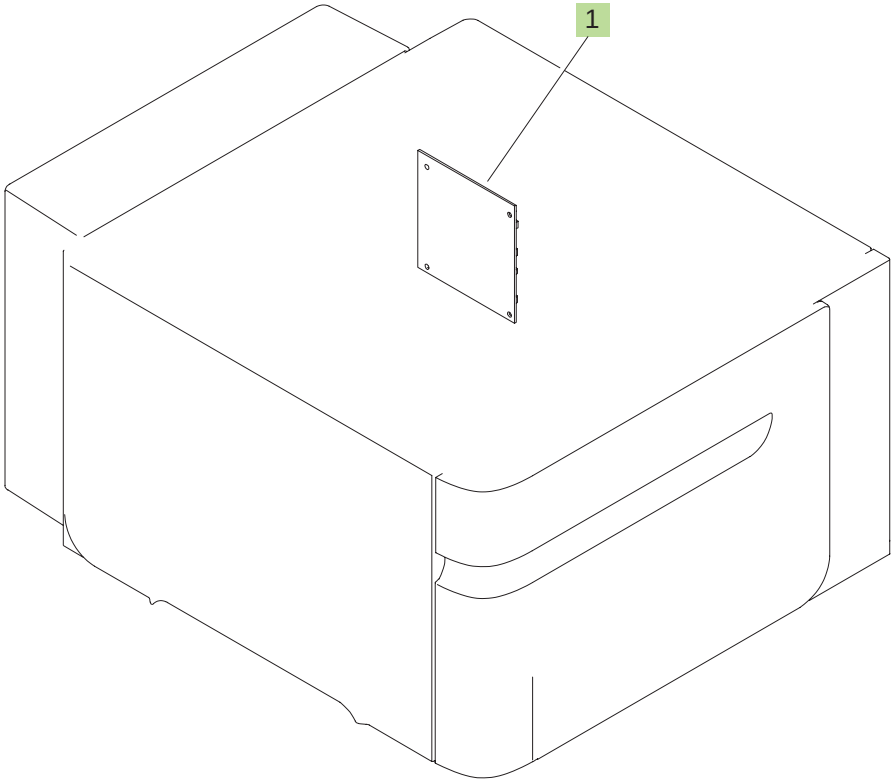


Table 8-14 Optional 1,500-sheet feeder PCA

Ref	Description	Part number	Qty
1	1,500-sheet feeder driver PCA	RM1-6214-000CN	1

Figure 8-16 Multi-bin mailbox PCA

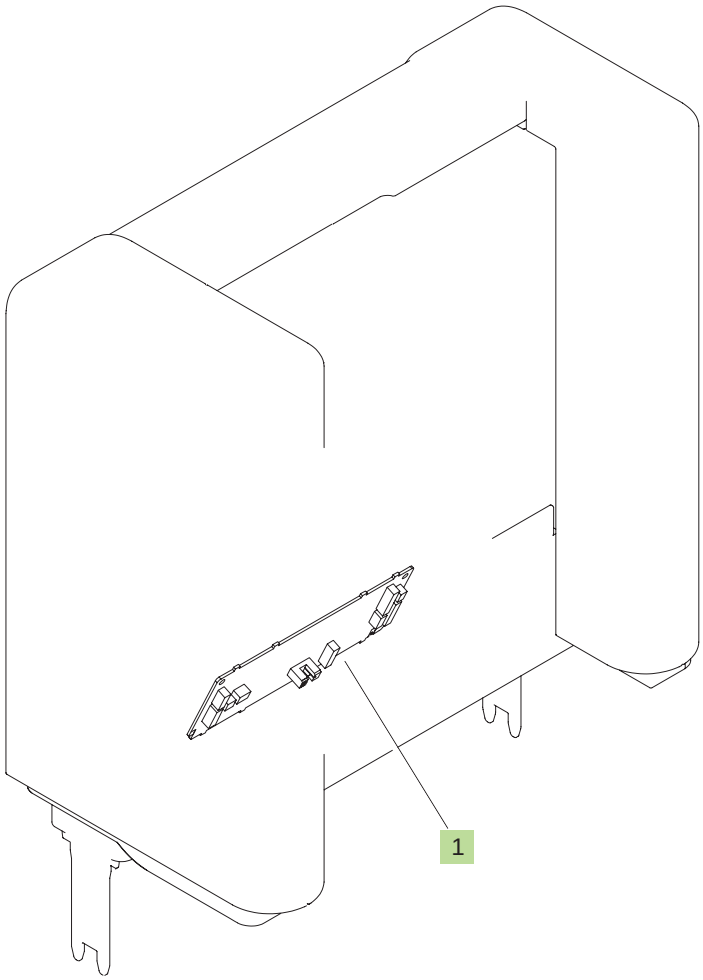


Table 8-15 Multi-bin mailbox PCA

Ref	Description	Part number	Qty
1	Multi-bin mailbox PCA	RM1-6224-000CN	1

Input devices

Figure 8-17 Optional 500-sheet paper feeder main body

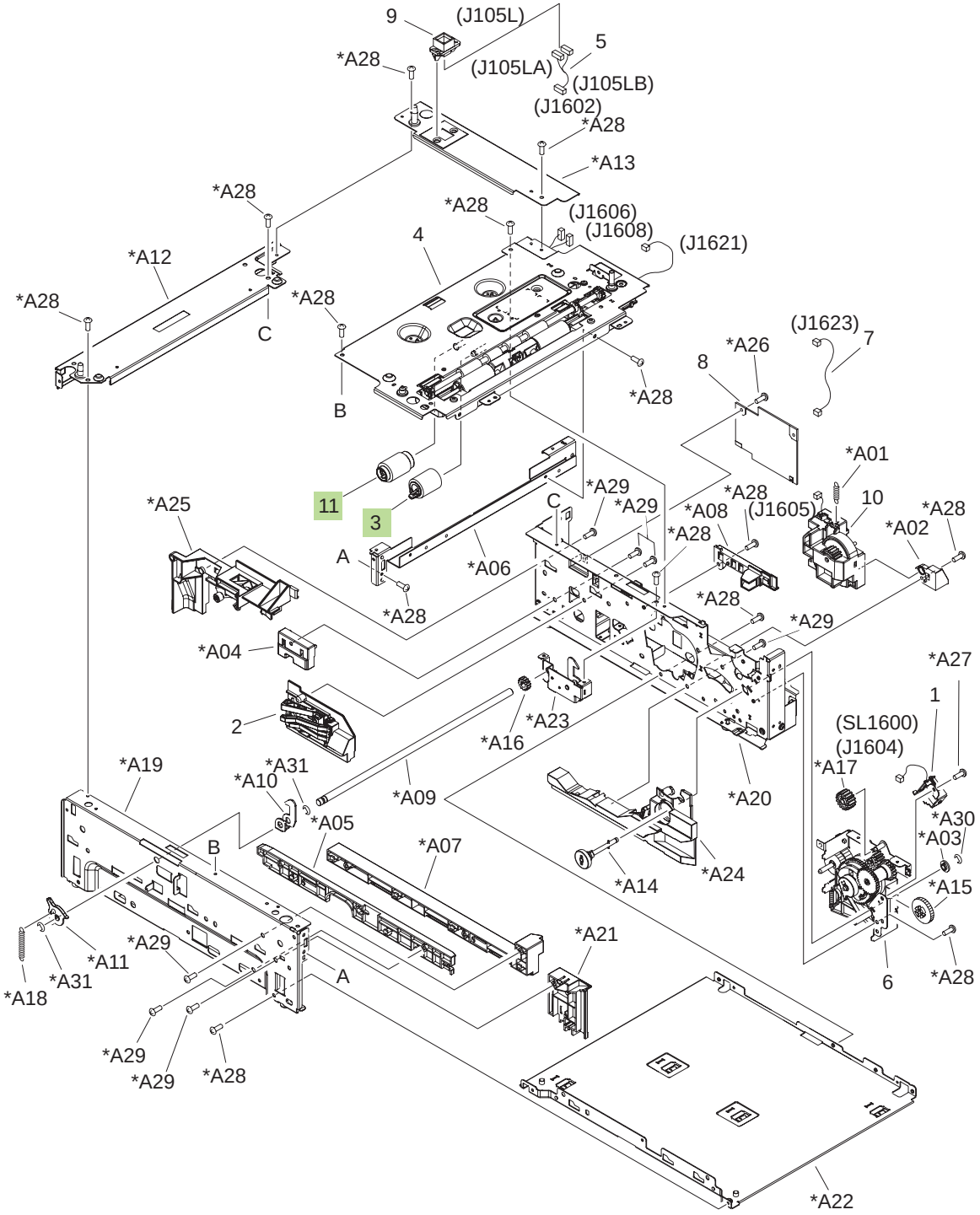


Table 8-16 Optional 500-sheet paper feeder main body

Ref	Description	Part number	Qty
	Product roller kit (contains 2 feed rollers, 1 pickup roller)	CB506-67904	1
1	Solenoid		1
2	Size detect assembly		1
3	Paper feed roller assembly	RM1-0037-020CN	1
4	Front top plate assembly		1
5	Cable, interface, upper		1
6	Pickup drive side plate		1
7	Cable, size sensor		1
8	500-page feeder driver PCA		1
9	Connector, drawer, 6P		1
10	Lifter driver assembly		1
11	Paper pickup roller assembly	RM1-0036-020CN	1
A01	Spring, tension		1
A02	Support, lifter drive assembly		1
A03	Bushing		1
A04	Guide, cassette right, rear		1
A05	Guide, cassette left, rear		1
A06	Plate, reinforcement		1
A07	Guide, left		1
A08	Guide, cable		1
A09	Shaft, lock joint		1
A10	Arm, lock		1
A11	Lever, lock		1
A12	Upper plate, rear		1
A13	Upper plate, right		1
A14	Shaft, retard drive		1
A15	Gear, 23T		1
A16	Gear, 14T		1
A17	Gear, 16T		1
A18	Spring, tension		1
A19	Left frame assembly		1
A20	Right frame assembly		1
A21	Front cassette left guide assembly		1
A22	Lower frame assembly		1

Table 8-16 Optional 500-sheet paper feeder main body (continued)

Ref	Description	Part number	Qty
A23	Lock side plate assembly		1
A24	Right front guide assembly		1
A25	Right guide assembly		1
A26	Screw, with washer, M3x6		2
A27	screw, tap, M3x6		1
A28	Screw, D, M3x8		33
A29	Screw, tap, pan head, M4x10		13
A30	Ring, E		1
A31	Ring, E		2

[1] Only orderable parts have part numbers.

Figure 8-18 Optional 500-sheet feeder cassette

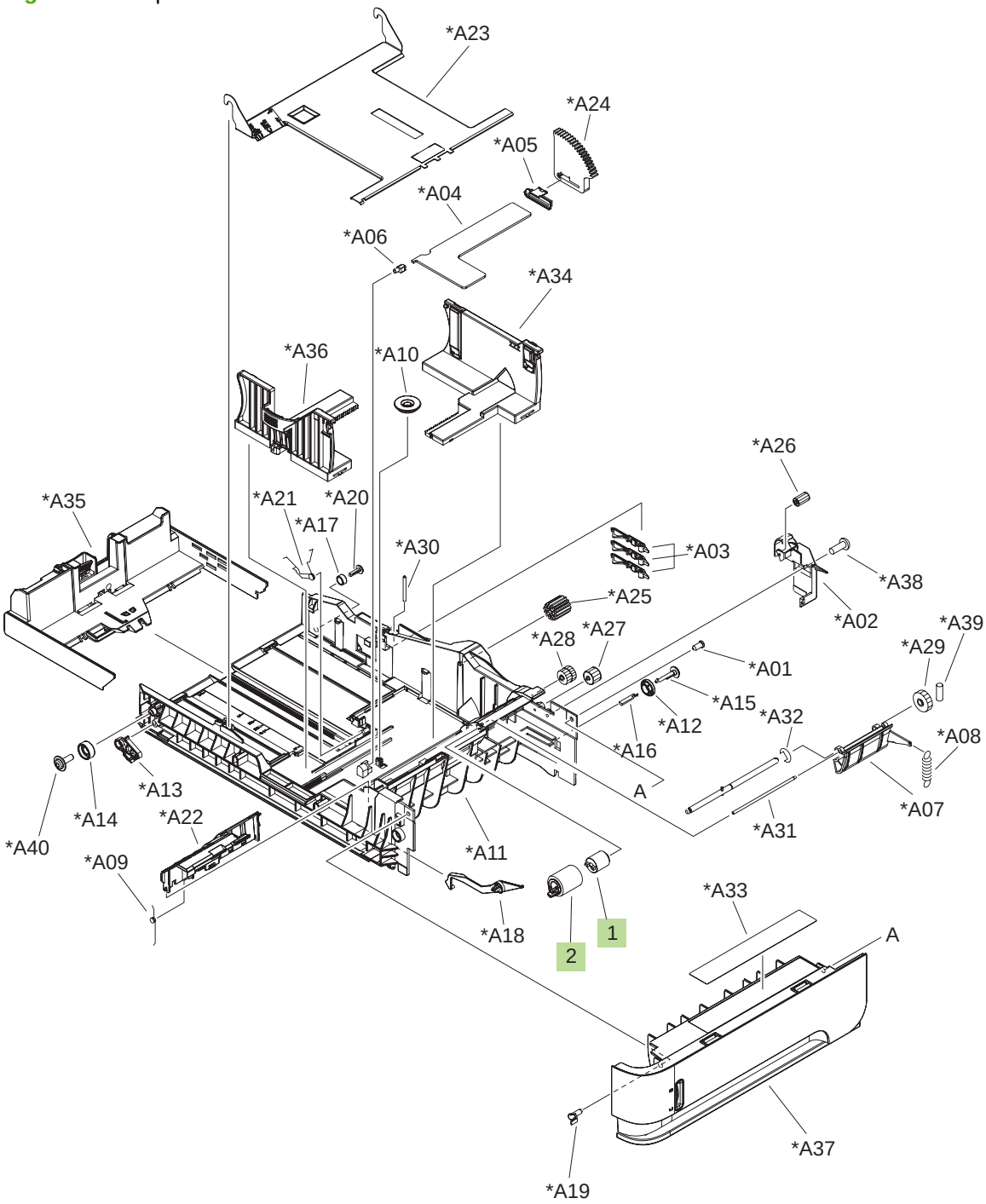


Table 8-17 Optional 500-sheet feeder cassette

Ref	Description	Part number	Qty
	Optional 500-sheet feeder cassette	RM1-4559-000CN	1
1	Limiter, cassette torque	RC2-5262-000CN	1
2	Paper feed roller assembly	RM1-0037-020CN	1
	Product roller kit (contains 2 feed rollers, 1 pickup roller)	CB506-67904	1
A01	Pin, front guide lock, right		1
A02	Cover, gear		1
A03	Flag, size sensing		3
A04	Arm, lifter		1
A05	Support, lifter arm		1
A06	Bushing, lifter arm		1
A07	Holder, retard gear		1
A08	Spring, tension		1
A09	Spring, torsion		1
A10	Gear, 20T		1
A11	Body, cassette		1
A12	Roller, positioning		1
A13	Claw, cassette		1
A14	Roller, LU		1
A15	Flange, positioning roller, right		1
A16	Shaft, positioning roller, auxiliary		1
A17	Roller, RD		1
A18	Gauge, fuel		1
A19			1
A20			1
A21	Spring, torsion		1
A22	Guide, nip		1
A23	Plate, paper lifting		1
A24	Gear, 88T		1
A25	Gear, 14T		1
A26	Gear, 14T		1
A27	Gear, 14T		1
A28	Gear, 15T/25T		1
A29	Gear, 37T		1
A30	Shaft, size sensing		1

Table 8-17 Optional 500-sheet feeder cassette (continued)

Ref	Description	Part number	Qty
A31	Shaft, retard gear holder		1
A32	Ring, E		1
A33	Label, cassette operation		1
A34	Right side end support assembly		1
A35	Cassette rear assembly		1
A36	Left side end support assembly		1
A37	Front cassette assembly		1
A38	Screw, tap, pan head, M4x10		1
A39	Pin, dowel		1
A40	Screw, tap, M4x12		1

[1] Only orderable parts have part numbers.

Figure 8-19 Optional 1,500-sheet paper feeder covers

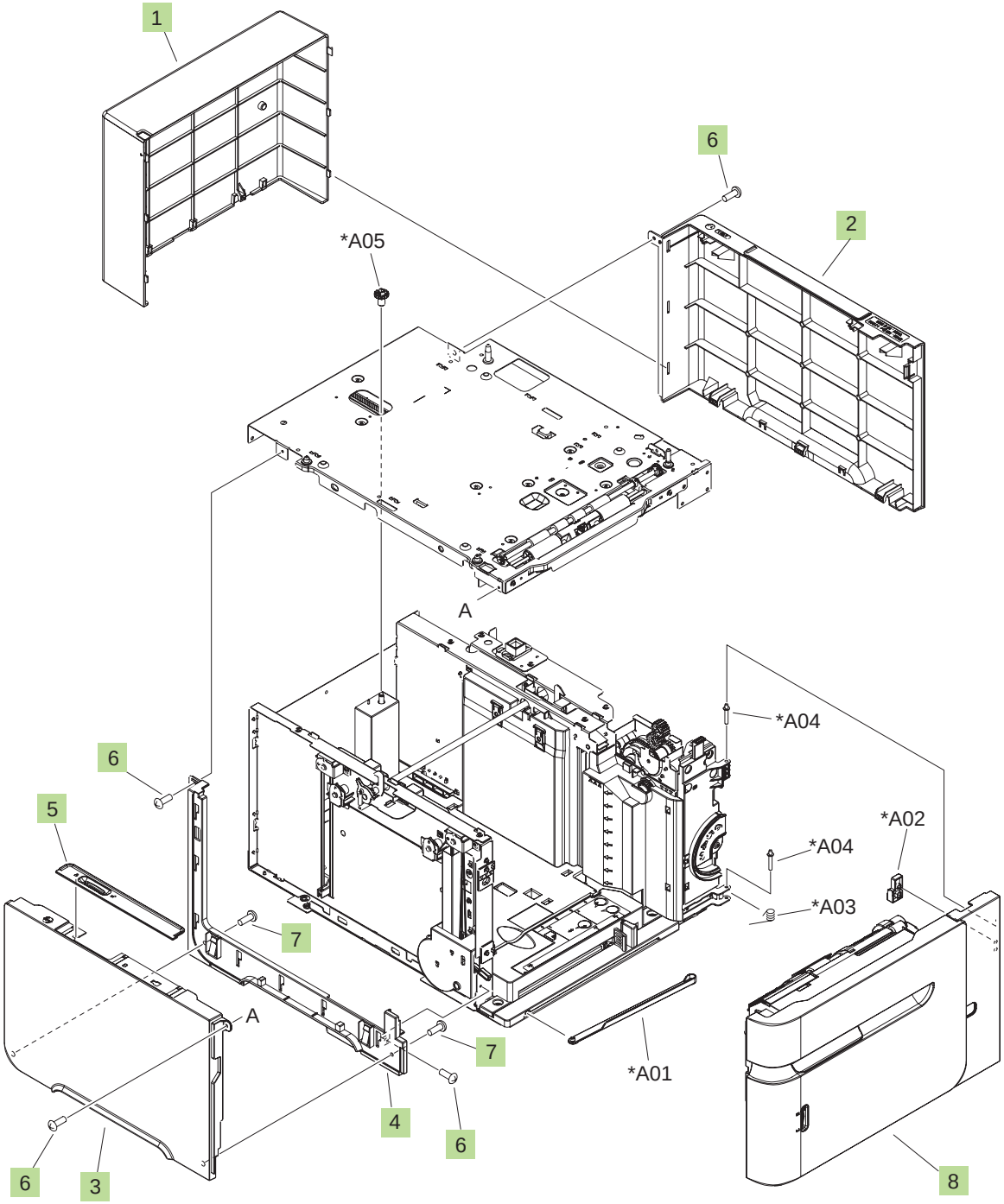


Table 8-18 Optional 1,500-sheet paper feeder covers

Ref	Description	Part number	Qty
1	Cover, rear	RC2-2640-000CN	1
2	Cover, right	RC2-2641-000CN	1
3	Cover, left	RC2-2642-000CN	1
4	Cover, left lower	RC2-2643-000CN	1
5	Cover, lock	RC2-2584-000CN	1
6	Screw, with washer, M3x8	XA9-1420-000CN	4
7	Screw, tap, pan head, M4x10	XB4-7401-007CN	2
8	Front door assembly	RM1-5255-000CN	1
A01	Arm, front cover support		1
A02	Stopper, front door		1
A03	Spring, torsion		1
A04	Shaft, front cover hinge		2
A05	Gear, 16T		1

[1] Only orderable parts have part numbers.

Figure 8-20 Optional 1,500-sheet feeder front door assembly

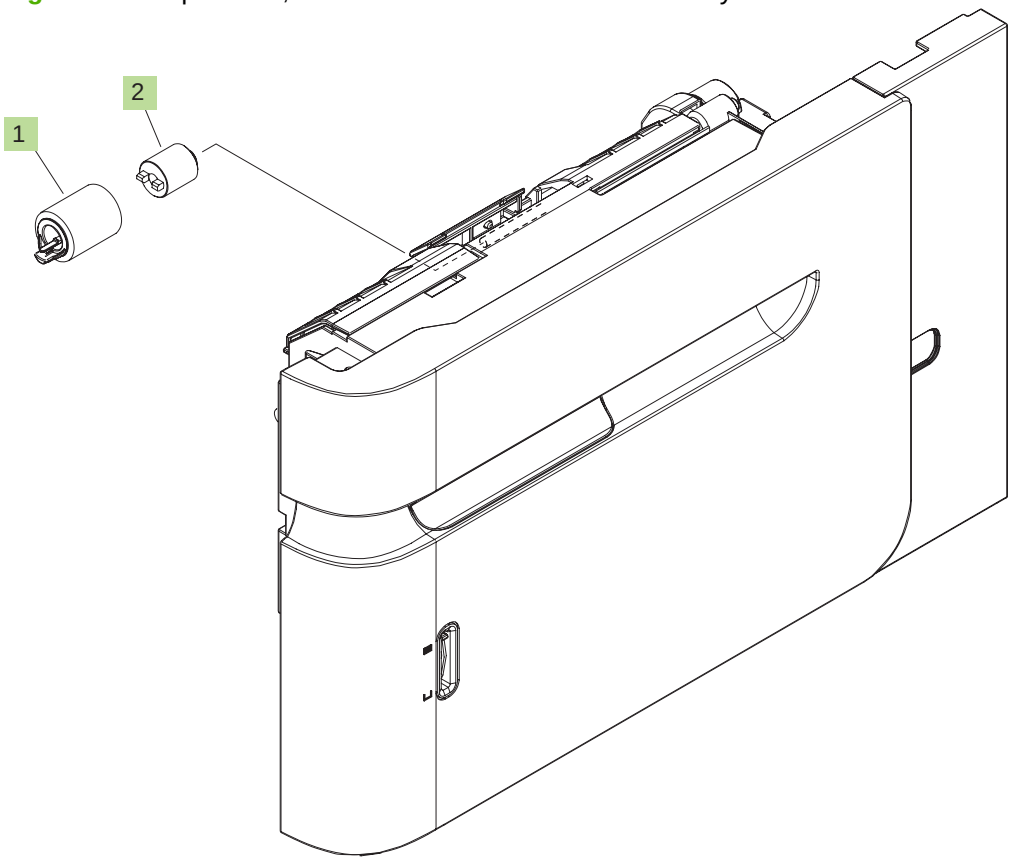


Table 8-19 Optional 1,500-sheet feeder front door assembly

Ref	Description	Part number	Qty
	Optional 1,500-sheet feeder front door assembly	RM1-5255-000CN	1
1	Paper feed roller assembly	RM1-0037-020CN	1
2	Limiter, cassette torque	RC2-5262-000CN	1

Figure 8-21 Optional 1,500-sheet feeder main body (1 of 2)

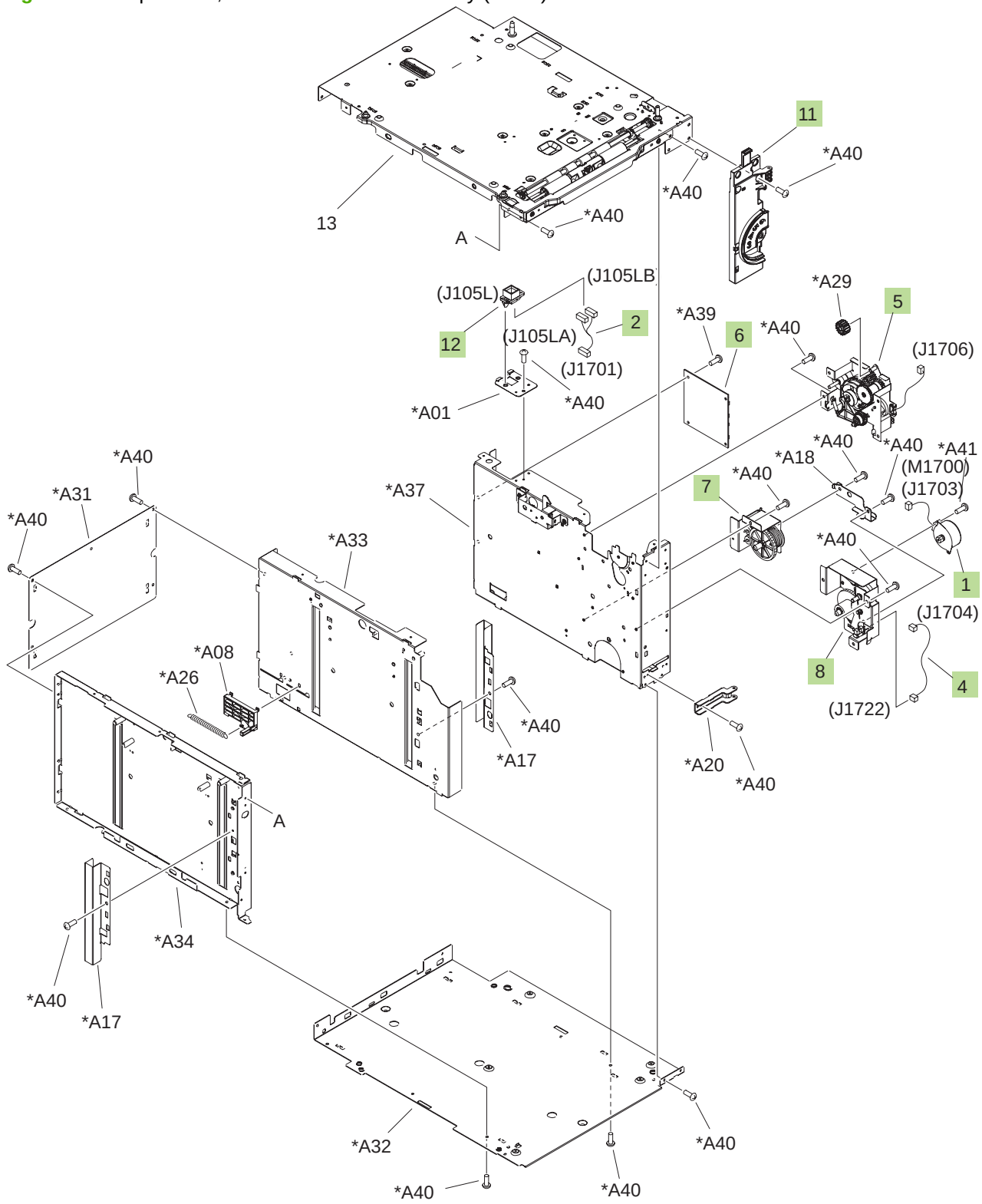


Table 8-20 Optional 1,500-sheet feeder main body (1 of 2)

Ref	Description	Part number	Qty
1	Motor, stepping	RH7-1603-020CN	1
2	Cable, interface	RM1-5126-000CN	1
4	Cable, door sensor	RM1-5128-000CN	1
5	Paper pickup drive assembly	RM1-5262-000CN	1
6	1,500-sheet feeder driver PCA	RM1-6214-000CN	1
7	Oil damper assembly	RM1-0289-030CN	1
8	Lifter drive assembly	RM1-1136-000CN	1
11	Numbering assembly	RM1-5265-000CN	1
12	Connector, drawer, 6P	VS1-7500-006CN	1
13	Paper pickup assembly (see Figure 8-23 Optional 1,500-sheet feeder paper pickup assembly on page 412)		1
A01	Holder, connector		1
A02	Pin, lifter tray stopper		1
A03	Sheet, solenoid damper		1
A04	Latch, front cover, upper		1
A05	Block, front cover pushing		1
A06	Guide, paper set, right		1
A07	Guide, paper set, left		1
A08	Block, paper size sensor		1
A09	Reel, lifter wire		2
A10	Cover, lifter wire reel		2
A11	Support, wire pulley		8
A12	Cover, pulley		8
A13	Shaft, lifter drive		1
A14	Pulley, wire, front		2
A15	Pulley, wire, rear		6
A16	Cover, lifter wire reel		2
A17	Plate, lifter wire cover		2
A18	Plate, damper support		1
A19	Support, release hook, left		1
A20	Holder, hinge shaft, lower		1
A21	Guide, paper set, front		1
A22	Bushing		1
A23	Gear, 14T		1
A24	Gear, 15T		1

Table 8-20 Optional 1,500-sheet feeder main body (1 of 2) (continued)

Ref	Description	Part number	Qty
A25	Gear, 19T/39T		1
A26	Spring, tension		1
A27	Spring, tension		2
A28	Spring, torsion		1
A29	Gear, 16T		1
A30	Spacer, screw		2
A31	Frame, rear		1
A32	Frame, lower		1
A33	Frame, right		1
A34	Frame, left		1
A35	Saddle, wire		1
A36	Lifter tray assembly		1
A37	Paper pickup side plate assembly		1
A38	Left hook assembly		1
A39	Screw, with washer, M3x8		4
A40	Screw, tap, M3x6		67
A41	Screw, with washer, M3x6		2
A42	Ring, E		2
A43	Ring, E		3
A44	Pin, dowel		3
A45	Foot		2

[1] Only orderable parts have part numbers.

Figure 8-22 Optional 1,500-sheet feeder main body (2 of 2)

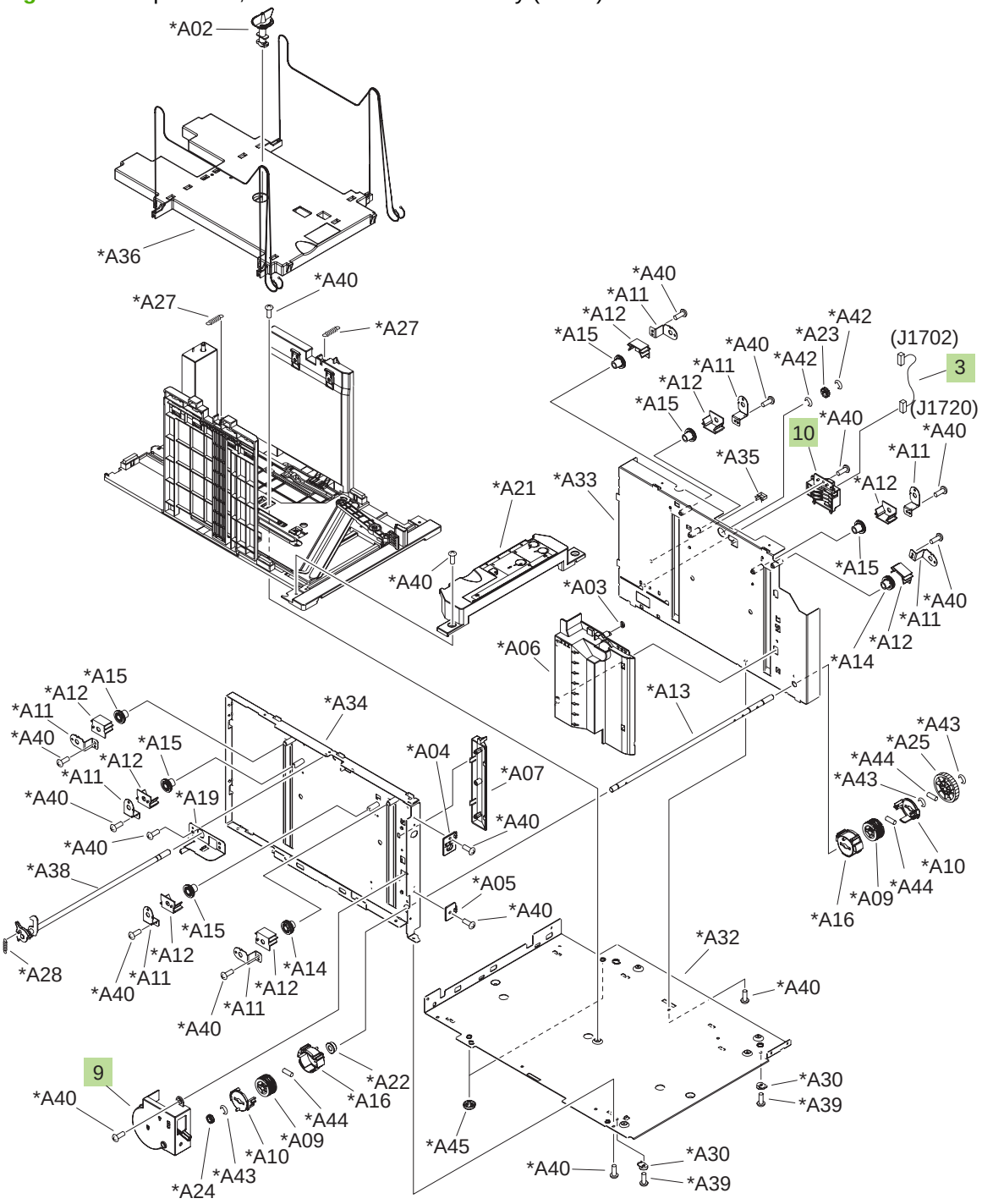


Table 8-21 Optional 1,500-sheet feeder main body (2 of 2)

Ref	Description	Part number	Qty
3	Cable, size sensor	RM1-5127-000CN	1
9	Remnant indication assembly	RM1-5259-000CN	1
10	Paper size detect assembly	RM1-5261-000CN	1
A01	Holder, connector		1
A02	Pin, lifter tray stopper		1
A03	Sheet, solenoid damper		1
A04	Latch, front cover, upper		1
A05	Block, front cover pushing		1
A06	Guide, paper set, right		1
A07	Guide, paper set, left		1
A08	Block, paper size sensor		1
A09	Reel, lifter wire		2
A10	Cover, lifter wire reel		2
A11	Support, wire pulley		8
A12	Cover, pulley		8
A13	Shaft, lifter drive		1
A14	Pulley, wire, front		2
A15	Pulley, wire, rear		6
A16	Cover, lifter wire reel		2
A17	Plate, lifter wire cover		2
A18	Plate, damper support		1
A19	Support, release hook, left		1
A20	Holder, hinge shaft, lower		1
A21	Guide, paper set, front		1
A22	Bushing		1
A23	Gear, 14T		1
A24	Gear, 15T		1
A25	Gear, 19T/39T		1
A26	Spring, tension		1
A27	Spring, tension		2
A28	Spring, torsion		1
A29	Gear, 16T		1
A30	Spacer, screw		2
A31	Frame, rear		1

Table 8-21 Optional 1,500-sheet feeder main body (2 of 2) (continued)

Ref	Description	Part number	Qty
A32	Frame, lower		1
A33	Frame, right		1
A34	Frame, left		1
A35	Saddle, wire		1
A36	Lifter tray assembly		1
A37	Paper pickup side plate assembly		1
A38	Left hook assembly		1
A39	Screw, with washer, M3x8		4
A40	Screw, tap, M3x6		67
A41	Screw, with washer, M3x6		2
A42	Ring, E		2
A43	Ring, E		3
A44	Pin, dowel		3
A45	Foot		2

[1] Only orderable parts have part numbers.

Figure 8-23 Optional 1,500-sheet feeder paper pickup assembly

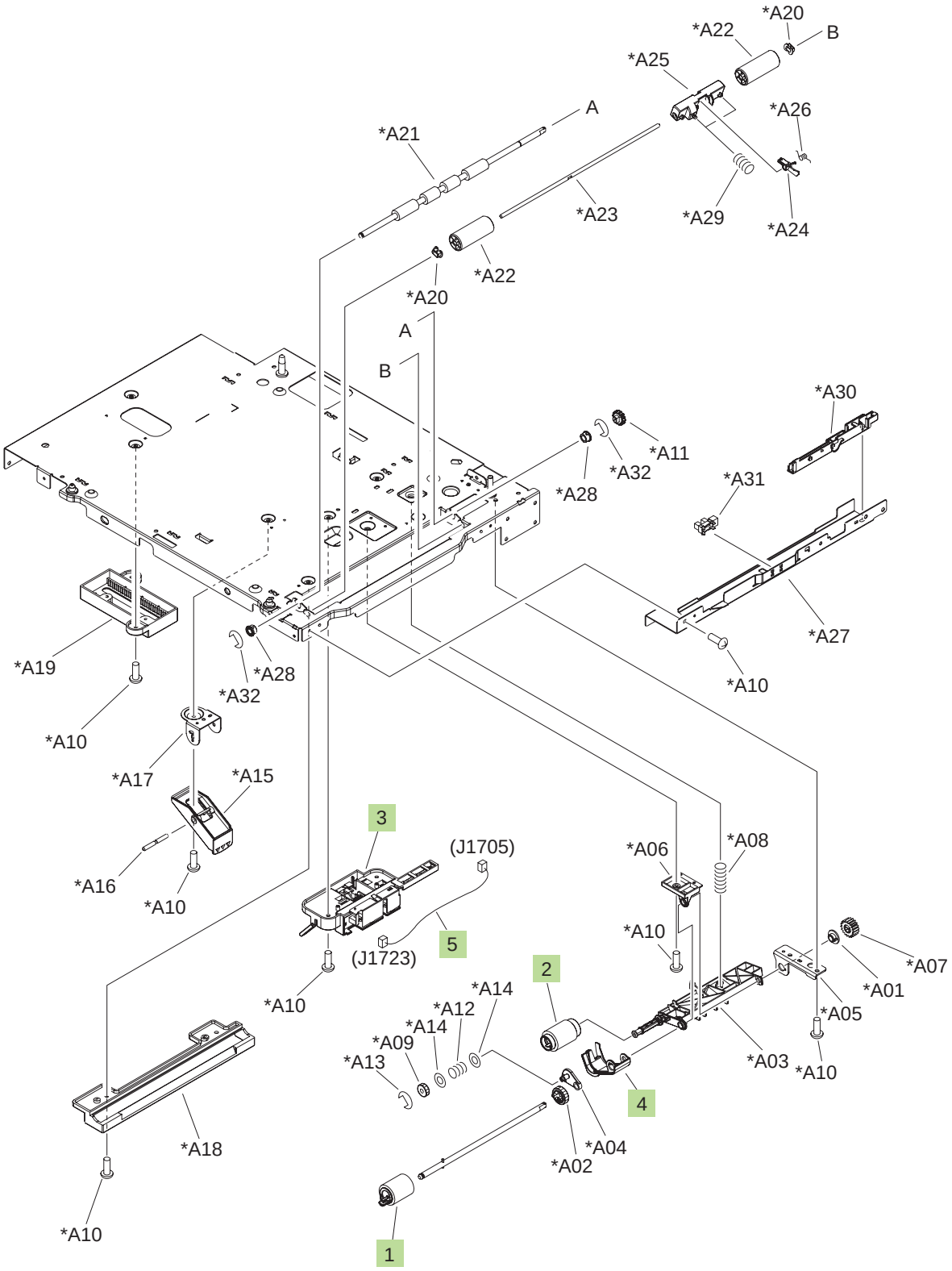


Table 8-22 Optional 1,500-sheet feeder paper pickup assembly

Ref	Description	Part number	Qty
	Product roller kit (contains 2 feed rollers, 1 pickup roller)	CB506-67904	1
1	Paper feed roller assembly	RM1-0037-020CN	1
2	Paper pickup roller assembly	RM1-0036-020CN	1
3	Paper detect sensor assembly	RM1-5264-000CN	1
4	Flag, paper detect	RC2-2524-000CN	1
5	Cable, feed, sensor	RM1-5129-000CN	1
A01	Bushing, feed shaft		1
A02	Gear, 23T		1
A03	Arm, pick		1
A04	Plate, swing		1
A05	Support, feed bushing		1
A06	Holder, feed shaft		1
A07	Gear, 18T		1
A08	Spring, compression		1
A09	Gear, 16T		1
A10	Screw, tap, M3x6		12
A11	Gear, 14T		1
A12	Spring, compression		1
A13	Ring, retainer		1
A14	Ring, slider		2
A15	Arm, paper load limit		1
A16	Shaft, load limit arm		1
A17	Holder, load limit arm		1
A18	Guide, paper outlet		1
A19	Lack, paper end limit, upper		1
A20	Bushing		2
A21	Roller, paper feed		1
A22	Roller, paper feed		2
A23	Shaft, paper feed roller		1
A24	Flag, paper feed sensor		1
A25	Holder, paper feed sensor flag		1
A26	Spring, torsion		1
A27	Plate, front upper		1
A28	Bushing		2

Table 8-22 Optional 1,500-sheet feeder paper pickup assembly (continued)

Ref	Description	Part number	Qty
A29	Spring, compression		2
A30	Guide, paper feed sensor cable		1
A31	IC, photo interrupter		1
A32	Ring, E		2

[1] Only orderable parts have part numbers.

Output devices

Figure 8-24 Multi-bin mailbox covers

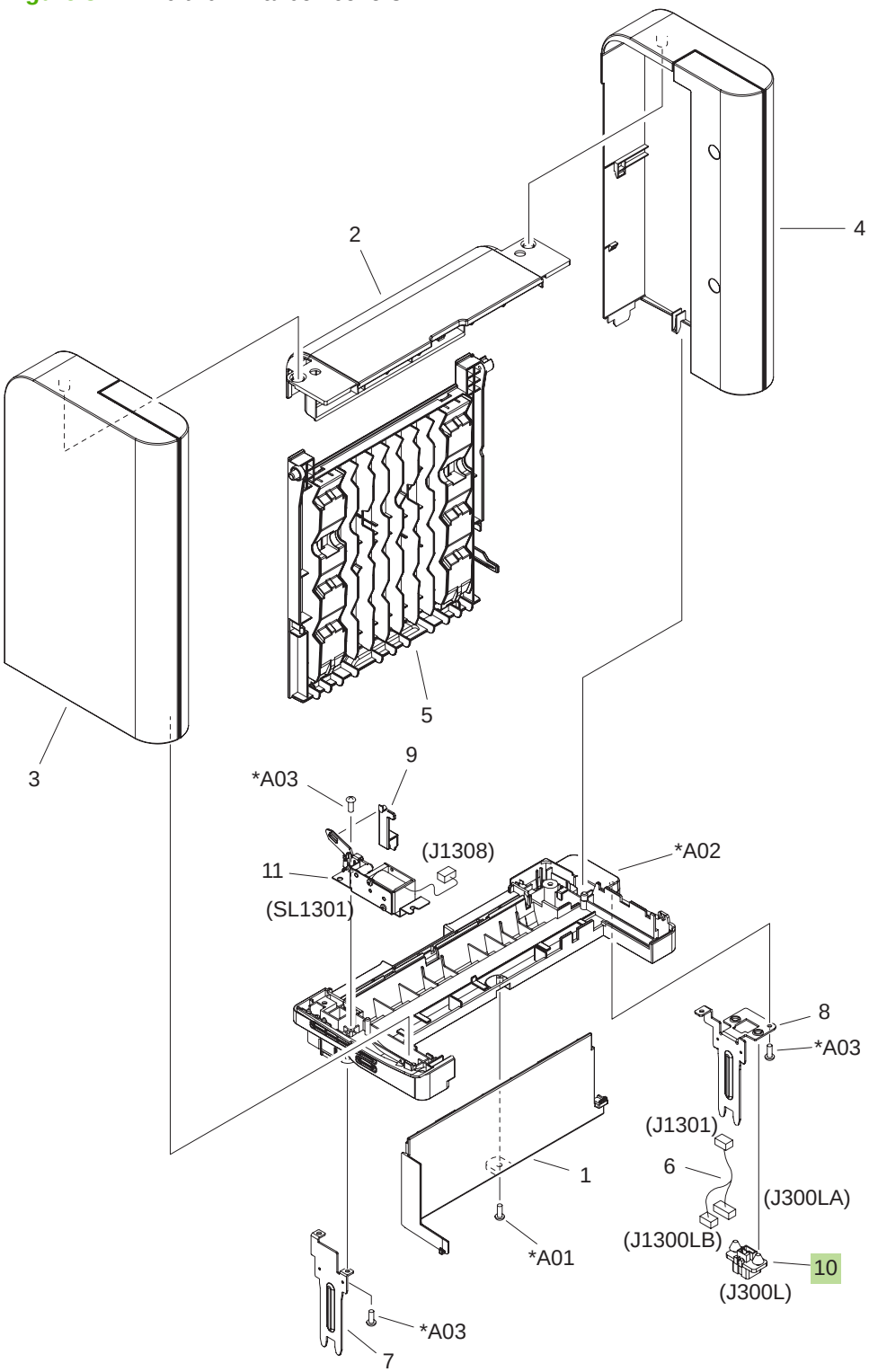


Table 8-23 Multi-bin mailbox covers

Ref	Description	Part number	Qty
1	Cover, front		1
2	Cover, top		1
3	Left cover assembly		1
4	Right cover assembly		1
5	Rear door assembly		1
6	Cable, stacker drawer		1
7	Joint, left		1
8	Joint, right		1
9	Lever, in flapper link		1
10	Connector, 8P	VS1-7500-008CN	1
11	IN solenoid assembly		1
A01	Screw, tap, binding head, M3x8		1
A02	Frame, base		1
A03	Screw, P, M3x8		3

[1] Only orderable parts have part numbers.

Figure 8-25 Multi-bin mailbox main body (1 of 2)

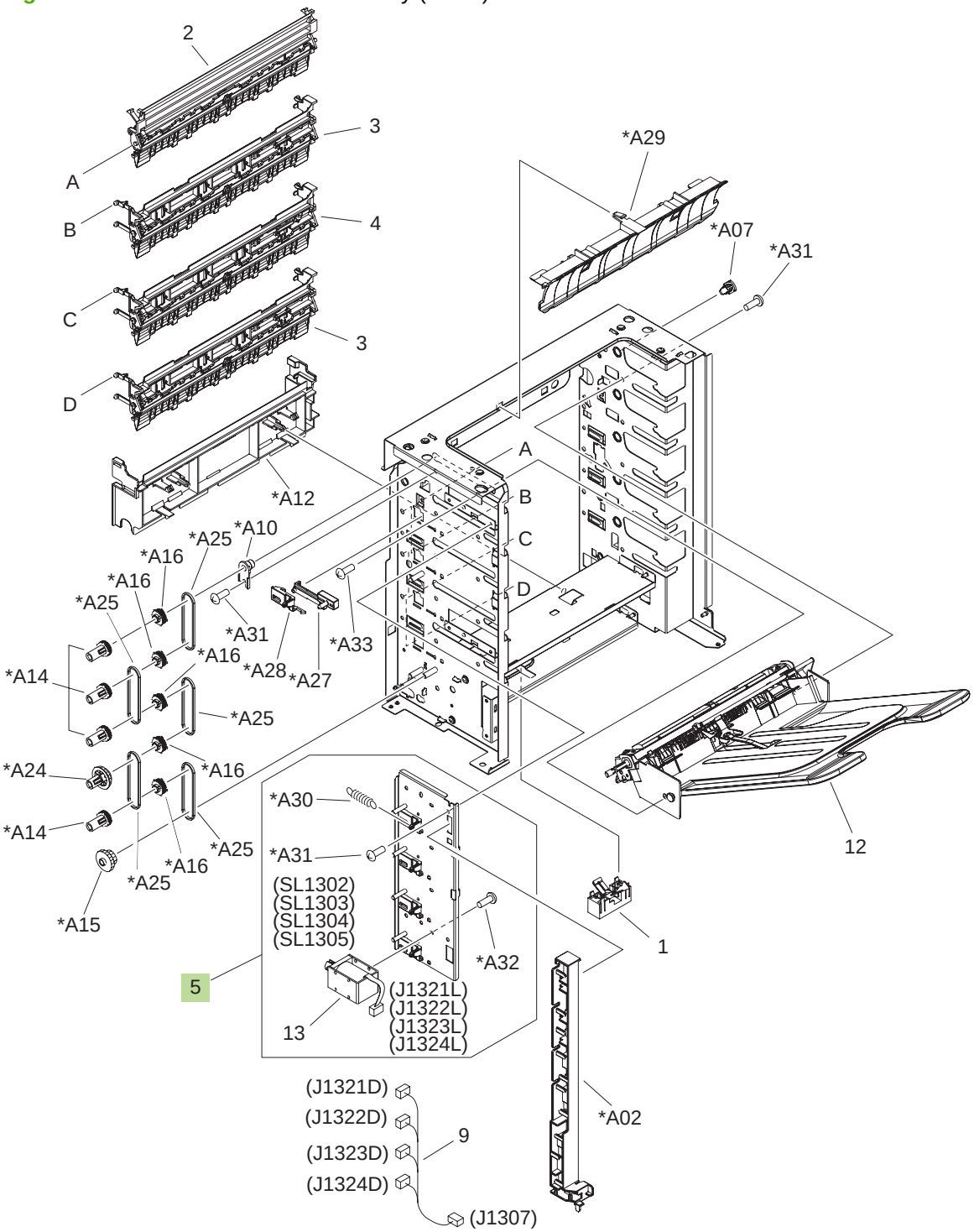


Table 8-24 Multi-bin mailbox main body (1 of 2)

Ref	Description	Part number	Qty
1	Paper sensing flag assembly		1
2	Top bin flapper assembly		1
3	Bin flapper assembly		2
4	Center bin flapper assembly		1
5	Bin solenoid assembly	RM1-5266-000CN	1
9	Cable, bin solenoid		1
12	Bin assembly		5
13	Solenoid		4
14	Frame, base		1
A01	Pad, arm		1
A02	Guide, cable, L		1
A03	Latch, rear door		1
A04	Bushing		1
A05	Stopper, rear door		1
A06	Spring, tension		1
A07	Pin		5
A08	Roller, delivery, inlet		1
A09	Bushing, pressure roller		2
A10	Bushing		5
A11	Roller, intermediate		1
A12	Cover, crossmember		1
A13	Spacer		1
A14	Pulley, 24T		4
A15	Gear, 34T/Pulley, 24T		1
A16	Pulley, 24T		5
A17	Bushing		4
A18	Spring, compression		2
A19	Gear, 24T		1
A20	Gear, 41T		1
A21	Gear, 24T/35T/48T		1
A22	Gear, 35T		1
A23	Gear, 26T		1
A24	Pulley/Gear, 34T		1
A25	Belt, timing		5

Table 8-24 Multi-bin mailbox main body (1 of 2) (continued)

Ref	Description	Part number	Qty
A26	Delivery inlet roller assembly		1
A27	Lever, bin flapper		4
A28	Base, bin lever		4
A29	Guide, crossmember		1
A30	Spring, compression		4
A31	Screw, D, M3x8		29
A32	Screw, machine, truss head, M3x4		8
A33	Screw, tap, binding head, M3x8		6
A34	Screw, tap, pan head, MM4x10		1
A35	Ring, E		2
A36	Sheet, bottom frame, right		2
A37	Sheet, bottom frame, left		2

[1] Only orderable parts have part numbers.

Figure 8-26 Multi-bin mailbox main body (2 of 2)

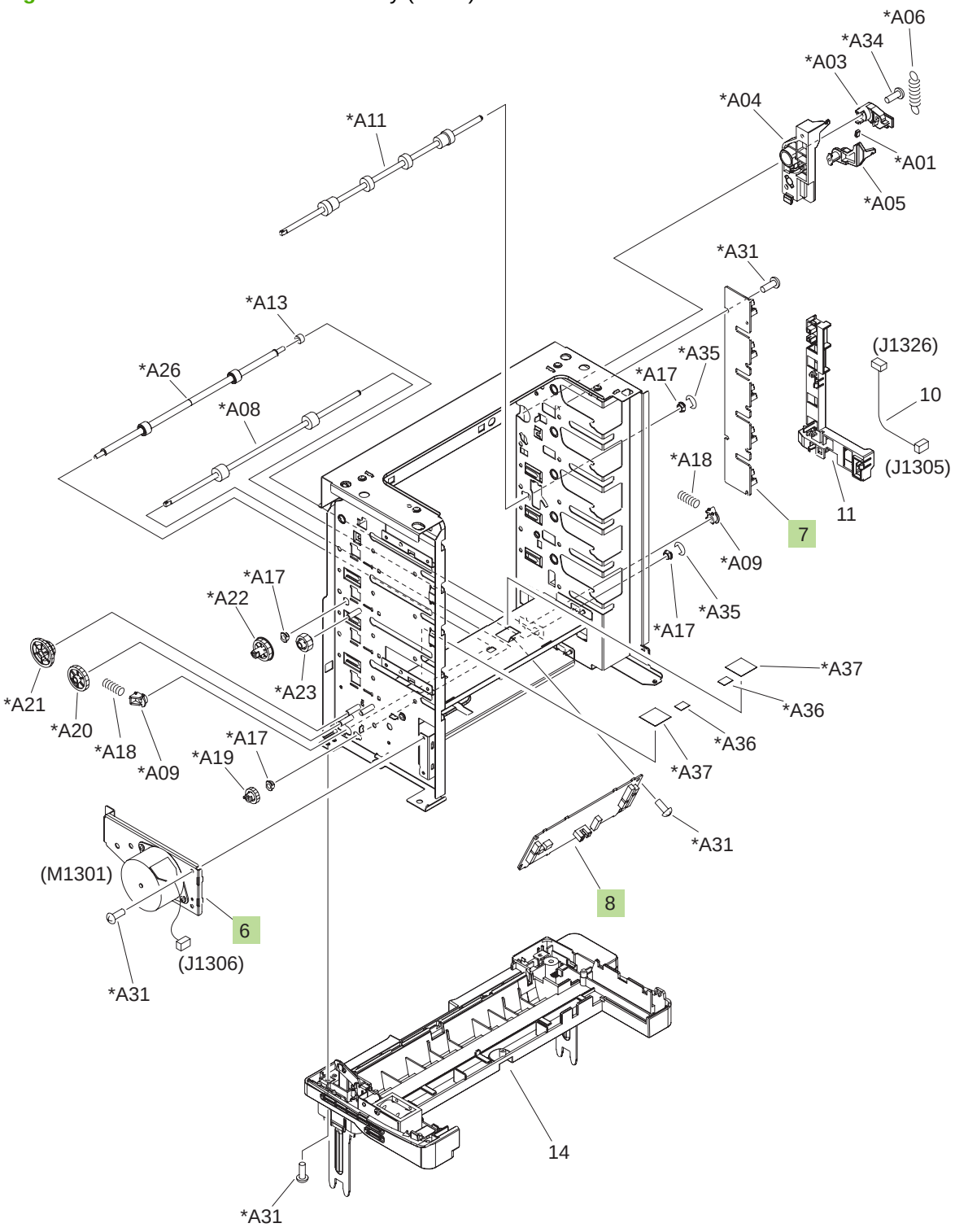


Table 8-25 Multi-bin mailbox main body (2 of 2)

Ref	Description	Part number	Qty
6	Drive assembly	RM1-5267-000CN	1
7	Sensor assembly	RM1-5096-000CN	1
8	Multi-bin mailbox PCA	RM1-6224-000CN	1
10	Cable, sensor PCA		1
11	Cable guide assembly		1
14	Frame, base		1
A01	Pad, arm		1
A02	Guide, cable, L		1
A03	Latch, rear door		1
A04	Bushing		1
A05	Stopper, rear door		1
A06	Spring, tension		1
A07	Pin		5
A08	Roller, delivery, inlet		1
A09	Bushing, pressure roller		2
A10	Bushing		5
A11	Roller, intermediate		1
A12	Cover, crossmember		1
A13	Spacer		1
A14	Pulley, 24T		4
A15	Gear, 34T/Pulley, 24T		1
A16	Pulley, 24T		5
A17	Bushing		4
A18	Spring, compression		2
A19	Gear, 24T		1
A20	Gear, 41T		1
A21	Gear, 24T/35T/48T		1
A22	Gear, 35T		1
A23	Gear, 26T		1
A24	Pulley/Gear, 34T		1
A25	Belt, timing		5
A26	Delivery inlet roller assembly		1
A27	Lever, bin flapper		4
A28	Base, bin lever		4

Table 8-25 Multi-bin mailbox main body (2 of 2) (continued)

Ref	Description	Part number	Qty
A29	Guide, crossmember		1
A30	Spring, compression		4
A31	Screw, D, M3x8		29
A32	Screw, machine, truss head, M3x4		8
A33	Screw, tap, binding head, M3x8		6
A34	Screw, tap, pan head, MM4x10		1
A35	Ring, E		2
A36	Sheet, bottom frame, right		2
A37	Sheet, bottom frame, left		2

[1] Only orderable parts have part numbers.

Alphabetical parts list

Table 8-26 Alphabetical parts list

Description	Part number	Table and page
		Optional 500-sheet feeder cassette on page 397
		Optional 500-sheet feeder cassette on page 397
1,500-sheet feeder driver PCA	RM1-6214-000CN	Optional 1,500-sheet feeder PCA on page 389
1,500-sheet feeder driver PCA	RM1-6214-000CN	Optional 1,500-sheet feeder main body (1 of 2) on page 405
500-page feeder driver PCA		Optional 500-sheet paper feeder main body on page 393
500-sheet cassette	RM1-4559-000CN	500-sheet cassette on page 373
500-sheet tray cassette	RM1-4559-000CN	Internal components (1 of 3) on page 359
Arm, front cover support		Optional 1,500-sheet paper feeder covers on page 401
Arm, lifter		500-sheet cassette on page 373
Arm, lifter		Optional 500-sheet feeder cassette on page 397
Arm, lock		Optional 500-sheet paper feeder main body on page 393
Arm, paper load limit		Optional 1,500-sheet feeder paper pickup assembly on page 413
Arm, pick		Optional 1,500-sheet feeder paper pickup assembly on page 413
Arm, release, A	RC2-2480-000CN	Internal components (1 of 3) on page 359
Arm, release, B	RC2-2481-000CN	Internal components (1 of 3) on page 359
Bar, filter, rear		Fusing assembly on page 383
Base, bin lever		Multi-bin mailbox main body (1 of 2) on page 419
Base, bin lever		Multi-bin mailbox main body (2 of 2) on page 423
Belt, timing		Multi-bin mailbox main body (1 of 2) on page 419
Belt, timing		Multi-bin mailbox main body (2 of 2) on page 423

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Bin assembly		Multi-bin mailbox main body (1 of 2) on page 419
Bin flapper assembly		Multi-bin mailbox main body (1 of 2) on page 419
Bin solenoid assembly	RM1-5266-000CN	Multi-bin mailbox main body (1 of 2) on page 419
Block, front cover pushing		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Block, front cover pushing		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Block, paper size sensor		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Block, paper size sensor		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Body, cassette		500-sheet cassette on page 373
Body, cassette		Optional 500-sheet feeder cassette on page 397
Bushing		Internal components (1 of 3) on page 359
Bushing	RC1-0206-000CN	Internal components (2 of 3) on page 363
Bushing	RC2-5783-000CN	Internal components (2 of 3) on page 363
Bushing		Internal components (2 of 3) on page 363
Bushing		Multipurpose pickup assembly on page 377
Bushing		Multipurpose pickup assembly on page 377
Bushing		Multipurpose pickup assembly on page 377
Bushing		Multipurpose pickup assembly on page 377
Bushing		Paper delivery assembly on page 381
Bushing		Paper delivery assembly on page 381
Bushing		Paper delivery assembly on page 381
Bushing		Fusing assembly on page 383

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Bushing		Fusing assembly on page 383
Bushing		Fusing assembly on page 383
Bushing		Optional 500-sheet paper feeder main body on page 393
Bushing		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Bushing		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Bushing		Optional 1,500-sheet feeder paper pickup assembly on page 413
Bushing		Optional 1,500-sheet feeder paper pickup assembly on page 413
Bushing		Multi-bin mailbox main body (1 of 2) on page 419
Bushing		Multi-bin mailbox main body (1 of 2) on page 419
Bushing		Multi-bin mailbox main body (1 of 2) on page 419
Bushing		Multi-bin mailbox main body (2 of 2) on page 423
Bushing		Multi-bin mailbox main body (2 of 2) on page 423
Bushing		Multi-bin mailbox main body (2 of 2) on page 423
Bushing, feed shaft	RC1-0264-000CN	Internal components (2 of 3) on page 363
Bushing, feed shaft		Optional 1,500-sheet feeder paper pickup assembly on page 413
Bushing, lift arm		500-sheet cassette on page 373
Bushing, lifter arm		Optional 500-sheet feeder cassette on page 397
Bushing, paper delivery	RC1-0136-000CN	Internal components (3 of 3) on page 367
Bushing, paper delivery, upper		Paper delivery assembly on page 381
Bushing, paper delivery, upper		Paper delivery assembly on page 381
Bushing, pressure roller		Multi-bin mailbox main body (1 of 2) on page 419

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Bushing, pressure roller		Multi-bin mailbox main body (2 of 2) on page 423
Cable guide assembly		Multi-bin mailbox main body (2 of 2) on page 423
Cable, bin solenoid		Multi-bin mailbox main body (1 of 2) on page 419
Cable, door sensor	RM1-5128-000CN	Optional 1,500-sheet feeder main body (1 of 2) on page 405
Cable, door switch	RM1-5080-000CN	Internal components (3 of 3) on page 367
Cable, drum motor	RM1-5090-000CN	Internal components (1 of 3) on page 359
Cable, envelope feeder	RM1-5085-000CN	Internal components (3 of 3) on page 367
Cable, feed motor	RM1-5089-000CN	Internal components (2 of 3) on page 363
Cable, feed, sensor	RM1-5129-000CN	Optional 1,500-sheet feeder paper pickup assembly on page 413
Cable, FSR AC		Fusing assembly on page 383
Cable, FSR DC		Fusing assembly on page 383
Cable, full sensor	RM1-5081-000CN	Internal components (3 of 3) on page 367
Cable, fuser motor	RM1-5088-000CN	Internal components (3 of 3) on page 367
Cable, inlet (110-127 V)	RM1-5078-000CN	Power supply assembly on page 371
Cable, inlet (220-240 V)	RM1-5079-000CN	Power supply assembly on page 371
Cable, interface	RM1-5126-000CN	Optional 1,500-sheet feeder main body (1 of 2) on page 405
Cable, interface, upper		Optional 500-sheet paper feeder main body on page 393
Cable, laser	RM1-5087-000CN	Internal components (2 of 3) on page 363
Cable, multipurpose sensor		Multipurpose pickup assembly on page 377
Cable, OPT DEL		Internal components (3 of 3) on page 367
Cable, option feeder		Internal components (3 of 3) on page 367
Cable, panel	RM1-5082-000CN	Internal components (3 of 3) on page 367

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Cable, sensor PCA		Multi-bin mailbox main body (2 of 2) on page 423
Cable, size sensor	RM1-5091-000CN	Internal components (1 of 3) on page 359
Cable, size sensor		Optional 500-sheet paper feeder main body on page 393
Cable, size sensor	RM1-5127-000CN	Optional 1,500-sheet feeder main body (2 of 2) on page 409
Cable, stacker drawer		Multi-bin mailbox covers on page 417
Cam		Multipurpose pickup assembly on page 377
Cam		Fusing assembly on page 383
Cam/gear, 30T		Multipurpose pickup assembly on page 377
Cam/gear, 30T		Multipurpose pickup assembly on page 377
Cap, drum gear		Internal components (1 of 3) on page 359
Case, envelope		Internal components (3 of 3) on page 367
Cassette rear assembly		500-sheet cassette on page 373
Cassette rear assembly		Optional 500-sheet feeder cassette on page 397
Center bin flapper assembly		Multi-bin mailbox main body (1 of 2) on page 419
Clamp, cable		Internal components (3 of 3) on page 367
Clamp, cord		Internal components (1 of 3) on page 359
Claw, cassette		500-sheet cassette on page 373
Claw, cassette		Optional 500-sheet feeder cassette on page 397
Clip, cable		Internal components (2 of 3) on page 363
Connector, 8P	VS1-7500-008CN	Multi-bin mailbox covers on page 417
Connector, drawer, 6P	VS1-7514-006CN	Power supply assembly on page 371
Connector, drawer, 6P		Optional 500-sheet paper feeder main body on page 393

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Connector, drawer, 6P	VS1-7500-006CN	Optional 1,500-sheet feeder main body (1 of 2) on page 405
Control panel assembly (P4014)	RM1-5060-000CN	Covers—base unit on page 357
Control panel assembly (P4015/P4515)	RM1-5059-000CN	Covers—base unit on page 357
Cover, connector		Internal components (3 of 3) on page 367
Cover, crossmember		Multi-bin mailbox main body (1 of 2) on page 419
Cover, crossmember		Multi-bin mailbox main body (2 of 2) on page 423
Cover, duplexing outer (P4014)	RC2-5760-000CN	Covers—base unit on page 357
Cover, duplexing outer (P4015/P4515)	RC2-2510-000CN	Covers—base unit on page 357
Cover, envelope	RL1-1667-000CN	Internal components (1 of 3) on page 359
Cover, envelope connector (P4014)	RC2-5759-000CN	Covers—base unit on page 357
Cover, envelope connector (P4015/P4515)	RC2-2476-000CN	Covers—base unit on page 357
Cover, formatter (P4014)	RC2-5757-000CN	Covers—base unit on page 357
Cover, formatter (P4015/P4515)	RC2-2468-000CN	Covers—base unit on page 357
Cover, front		Multi-bin mailbox covers on page 417
Cover, gear		500-sheet cassette on page 373
Cover, gear		Optional 500-sheet feeder cassette on page 397
Cover, left	RC2-2642-000CN	Optional 1,500-sheet paper feeder covers on page 401
Cover, left lower	RC2-2643-000CN	Optional 1,500-sheet paper feeder covers on page 401
Cover, legal (P4014)	RC2-5761-000CN	Covers—base unit on page 357
Cover, legal (P4015/P4515)	RC2-5239-000CN	Covers—base unit on page 357
Cover, lifter wire reel		Optional 1,500-sheet feeder main body (1 of 2) on page 405

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Cover, lifter wire reel		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Cover, lifter wire reel		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Cover, lifter wire reel		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Cover, lock	RC2-2584-000CN	Optional 1,500-sheet paper feeder covers on page 401
Cover, multipurpose spring, left		Multipurpose pickup assembly on page 377
Cover, multipurpose spring, right		Multipurpose pickup assembly on page 377
Cover, option	RC2-2459-000CN	Covers—base unit on page 357
Cover, pulley		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Cover, pulley		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Cover, rear	RC2-2640-000CN	Optional 1,500-sheet paper feeder covers on page 401
Cover, right	RC2-2641-000CN	Optional 1,500-sheet paper feeder covers on page 401
Cover, right front (P4014)	RC2-5758-000CN	Covers—base unit on page 357
Cover, right front (P4015/P4515)	RC2-2475-000CN	Covers—base unit on page 357
Cover, right rear (P4014)	RC2-5768-000CN	Covers—base unit on page 357
Cover, right rear (P4015/P4515)	RC2-2478-000CN	Covers—base unit on page 357
Cover, roller		Multipurpose pickup assembly on page 377
Cover, top		Multi-bin mailbox covers on page 417
Crossmember, front		Internal components (3 of 3) on page 367
Crossmember, fusing		Power supply assembly on page 371
Crossmember, option, left		Internal components (3 of 3) on page 367

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Crossmember, option, right		Internal components (3 of 3) on page 367
DC controller PCA	RM1-4582-000CN	Internal components (3 of 3) on page 367
DC controller PCA	RM1-4582-000CN	PCAs—base unit on page 387
Deflector, delivery		Paper delivery assembly on page 381
Delivery inlet roller assembly		Multi-bin mailbox main body (1 of 2) on page 419
Delivery inlet roller assembly		Multi-bin mailbox main body (2 of 2) on page 423
Drive assembly	RM1-5267-000CN	Multi-bin mailbox main body (2 of 2) on page 423
Duct, fourth fan		Internal components (3 of 3) on page 367
Duct, scanner protective, 1		Internal components (2 of 3) on page 363
Duct, scanner protective, 2		Internal components (2 of 3) on page 363
Duct, second fan		Internal components (3 of 3) on page 367
Electrical components assembly (110-127 V)	RM1-4549-000CN	Power supply assembly on page 371
Electrical components assembly (110-127 V)	RM1-4549-000CN	PCAs—base unit on page 387
Electrical components assembly (220-240 V)	RM1-4578-000CN	Power supply assembly on page 371
Electrical components assembly (220-240 V)	RM1-4578-000CN	PCAs—base unit on page 387
Eliminator		Fusing assembly on page 383
Face-up tray assembly (P4014)	RM1-5448-000CN	Covers—base unit on page 357
Face-up tray assembly (P4015/P4515)	RM1-4531-000CN	Covers—base unit on page 357
Fan	RK2-1988-000CN	Internal components (3 of 3) on page 367
Fan	RK2-1989-000CN	Internal components (3 of 3) on page 367
Fan	RK2-1991-000CN	Internal components (3 of 3) on page 367
Fan	RK2-1992-000CN	Internal components (3 of 3) on page 367
Feeder sensor cable assembly		Internal components (2 of 3) on page 363

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Flag, paper detect	RC2-2524-000CN	Optional 1,500-sheet feeder paper pickup assembly on page 413
Flag, paper feed sensor		Optional 1,500-sheet feeder paper pickup assembly on page 413
Flag, paper presence detect		Internal components (2 of 3) on page 363
Flag, sensor, left		Fusing assembly on page 383
Flag, sensor, right		Fusing assembly on page 383
Flag, shutter		Internal components (2 of 3) on page 363
Flag, size sensing		500-sheet cassette on page 373
Flag, size sensing		Optional 500-sheet feeder cassette on page 397
Flange, positioning roller, right		500-sheet cassette on page 373
Flange, positioning roller, right		Paper delivery assembly on page 381
Flange, positioning roller, right		Optional 500-sheet feeder cassette on page 397
Foot		Internal components (1 of 3) on page 359
Foot		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Foot		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Formatter assembly (base models)	CB437-69001 (exchange)	PCAs—base unit on page 387
Formatter assembly (base models)	CB437-67901 (new)	PCAs—base unit on page 387
Formatter assembly (network models)	CB438-69001 (exchange)	PCAs—base unit on page 387
Formatter assembly (network models)	CB438-67901 (new)	PCAs—base unit on page 387
Frame, base		Multi-bin mailbox covers on page 417
Frame, base		Multi-bin mailbox main body (1 of 2) on page 419
Frame, base		Multi-bin mailbox main body (2 of 2) on page 423
Frame, face-down		Paper delivery assembly on page 381

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Frame, left		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Frame, left		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Frame, lower		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Frame, lower		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Frame, multi, right		Multipurpose pickup assembly on page 377
Frame, rear		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Frame, rear		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Frame, right		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Frame, right		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Front cassette assembly		500-sheet cassette on page 373
Front cassette assembly		Optional 500-sheet feeder cassette on page 397
Front cassette left guide assembly		Optional 500-sheet paper feeder main body on page 393
Front cassette LF guide assembly		Internal components (3 of 3) on page 367
Front cover assembly	RM1-4534-000CN	Covers—base unit on page 357
Front door assembly	RM1-5255-000CN	Optional 1,500-sheet paper feeder covers on page 401
Front top plate assembly		Optional 500-sheet paper feeder main body on page 393
Fuser assembly (110-127 V) (also see Figure 8-13 Fusing assembly on page 382)	CB506-67901	Internal components (3 of 3) on page 367
Fuser assembly (220-240 V) (also see Figure 8-13 Fusing assembly on page 382)	CB506-67902	Internal components (3 of 3) on page 367
Fuser motor assembly	RM1-5051-000CN	Internal components (3 of 3) on page 367

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Fusing assembly (110-127 V)	CB506-67901	Fusing assembly on page 383
Fusing assembly (220-240 V)	CB506-67902	Fusing assembly on page 383
Gauge, fuel		500-sheet cassette on page 373
Gauge, fuel		Optional 500-sheet feeder cassette on page 397
Gear 35T		Internal components (3 of 3) on page 367
Gear, 14T		500-sheet cassette on page 373
Gear, 14T		500-sheet cassette on page 373
Gear, 14T		500-sheet cassette on page 373
Gear, 14T		Multipurpose pickup assembly on page 377
Gear, 14T		Optional 500-sheet paper feeder main body on page 393
Gear, 14T		Optional 500-sheet feeder cassette on page 397
Gear, 14T		Optional 500-sheet feeder cassette on page 397
Gear, 14T		Optional 500-sheet feeder cassette on page 397
Gear, 14T		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Gear, 14T		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Gear, 14T		Optional 1,500-sheet feeder paper pickup assembly on page 413
Gear, 15T		Internal components (3 of 3) on page 367
Gear, 15T		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Gear, 15T		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Gear, 15T/21T		Multipurpose pickup assembly on page 377
Gear, 15T/25T		500-sheet cassette on page 373

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Gear, 15T/25T		Optional 500-sheet feeder cassette on page 397
Gear, 16T		Optional 500-sheet paper feeder main body on page 393
Gear, 16T		Optional 1,500-sheet paper feeder covers on page 401
Gear, 16T		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Gear, 16T		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Gear, 16T		Optional 1,500-sheet feeder paper pickup assembly on page 413
Gear, 17T		Internal components (3 of 3) on page 367
Gear, 17T		Paper delivery assembly on page 381
Gear, 17T		Fusing assembly on page 383
Gear, 17T/25T		Internal components (2 of 3) on page 363
Gear, 18T	RU5-0045-020CN	Internal components (2 of 3) on page 363
Gear, 18T		Paper delivery assembly on page 381
Gear, 18T		Fusing assembly on page 383
Gear, 18T		Optional 1,500-sheet feeder paper pickup assembly on page 413
Gear, 193T		Internal components (1 of 3) on page 359
Gear, 19T/39T		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Gear, 19T/39T		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Gear, 20T		500-sheet cassette on page 373
Gear, 20T		Paper delivery assembly on page 381
Gear, 20T		Optional 500-sheet feeder cassette on page 397
Gear, 21T		Paper delivery assembly on page 381

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Gear, 23T	RU6-0159-000CN	Internal components (2 of 3) on page 363
Gear, 23T		Optional 500-sheet paper feeder main body on page 393
Gear, 23T		Optional 1,500-sheet feeder paper pickup assembly on page 413
Gear, 23T/19T		Internal components (3 of 3) on page 367
Gear, 24T		Multi-bin mailbox main body (1 of 2) on page 419
Gear, 24T		Multi-bin mailbox main body (2 of 2) on page 423
Gear, 24T/35T/48T		Multi-bin mailbox main body (1 of 2) on page 419
Gear, 24T/35T/48T		Multi-bin mailbox main body (2 of 2) on page 423
Gear, 25T/91T		Internal components (3 of 3) on page 367
Gear, 26T		Multi-bin mailbox main body (1 of 2) on page 419
Gear, 26T		Multi-bin mailbox main body (2 of 2) on page 423
Gear, 29T		Internal components (2 of 3) on page 363
Gear, 30T		Multipurpose pickup assembly on page 377
Gear, 30T/34T		Multipurpose pickup assembly on page 377
Gear, 33T		Internal components (3 of 3) on page 367
Gear, 33T		Paper delivery assembly on page 381
Gear, 34T/Pulley, 24T		Multi-bin mailbox main body (1 of 2) on page 419
Gear, 34T/Pulley, 24T		Multi-bin mailbox main body (2 of 2) on page 423
Gear, 35T		Internal components (2 of 3) on page 363
Gear, 35T		Multi-bin mailbox main body (1 of 2) on page 419
Gear, 35T		Multi-bin mailbox main body (2 of 2) on page 423
Gear, 37T		500-sheet cassette on page 373

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Gear, 37T		Optional 500-sheet feeder cassette on page 397
Gear, 37T/18T		Internal components (2 of 3) on page 363
Gear, 41T		Multi-bin mailbox main body (1 of 2) on page 419
Gear, 41T		Multi-bin mailbox main body (2 of 2) on page 423
Gear, 88T		500-sheet cassette on page 373
Gear, 88T		Optional 500-sheet feeder cassette on page 397
Grounding plate assembly	RM1-5461-000CN	Internal components (1 of 3) on page 359
Guard, edge		Internal components (1 of 3) on page 359
Guard, edge		Power supply assembly on page 371
Guide, cable		Optional 500-sheet paper feeder main body on page 393
Guide, cable, L		Multi-bin mailbox main body (1 of 2) on page 419
Guide, cable, L		Multi-bin mailbox main body (2 of 2) on page 423
Guide, cable, left		Fusing assembly on page 383
Guide, cable, right		Fusing assembly on page 383
Guide, cable, right front		Internal components (2 of 3) on page 363
Guide, cartridge, right		Internal components (3 of 3) on page 367
Guide, cassette left, rear		Internal components (1 of 3) on page 359
Guide, cassette left, rear		Optional 500-sheet paper feeder main body on page 393
Guide, cassette right, rear		Internal components (1 of 3) on page 359
Guide, cassette right, rear		Optional 500-sheet paper feeder main body on page 393
Guide, connecting cable	RC1-0386-000CN	Internal components (1 of 3) on page 359
Guide, crossmember		Multi-bin mailbox main body (1 of 2) on page 419
Guide, crossmember		Multi-bin mailbox main body (2 of 2) on page 423

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Guide, EPU, rear		Internal components (2 of 3) on page 363
Guide, flat flexible cable		Internal components (3 of 3) on page 367
Guide, front		Internal components (2 of 3) on page 363
Guide, gear		Internal components (1 of 3) on page 359
Guide, gear shift, A		Internal components (1 of 3) on page 359
Guide, gear shift, B		Internal components (1 of 3) on page 359
Guide, left		Internal components (3 of 3) on page 367
Guide, left		Optional 500-sheet paper feeder main body on page 393
Guide, left, upper		Internal components (3 of 3) on page 367
Guide, lower		Internal components (2 of 3) on page 363
Guide, nip		500-sheet cassette on page 373
Guide, nip		Optional 500-sheet feeder cassette on page 397
Guide, nip, center		Multipurpose pickup assembly on page 377
Guide, nip, left		Multipurpose pickup assembly on page 377
Guide, nip, right		Multipurpose pickup assembly on page 377
Guide, paper delivery		Paper delivery assembly on page 381
Guide, paper delivery guide, upper		Fusing assembly on page 383
Guide, paper delivery, lower		Fusing assembly on page 383
Guide, paper feed sensor cable		Optional 1,500-sheet feeder paper pickup assembly on page 413
Guide, paper inlet, lower		Fusing assembly on page 383
Guide, paper outlet		Optional 1,500-sheet feeder paper pickup assembly on page 413
Guide, paper set, front		Optional 1,500-sheet feeder main body (1 of 2) on page 405

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Guide, paper set, front		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Guide, paper set, left		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Guide, paper set, left		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Guide, paper set, right		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Guide, paper set, right		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Guide, rear		Internal components (3 of 3) on page 367
Guide, scanner cable		Internal components (1 of 3) on page 359
Hinge, multi, left		Multipurpose pickup assembly on page 377
Hinge, multi, right		Multipurpose pickup assembly on page 377
Holder, brush		Fusing assembly on page 383
Holder, check pin		Internal components (3 of 3) on page 367
Holder, connector		Power supply assembly on page 371
Holder, connector		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Holder, connector		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Holder, DCU		Internal components (3 of 3) on page 367
Holder, feed shaft		Optional 1,500-sheet feeder paper pickup assembly on page 413
Holder, fusing lever		Fusing assembly on page 383
Holder, fusing sensor		Fusing assembly on page 383
Holder, hinge shaft, lower		Optional 1,500-sheet feeder main body (1 of 2) on page 405

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Holder, hinge shaft, lower		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Holder, inlet		Power supply assembly on page 371
Holder, load limit arm		Optional 1,500-sheet feeder paper pickup assembly on page 413
Holder, paper feed sensor flag		Optional 1,500-sheet feeder paper pickup assembly on page 413
Holder, retard gear		500-sheet cassette on page 373
Holder, retard gear		Optional 500-sheet feeder cassette on page 397
Holder, sensor		Internal components (3 of 3) on page 367
Holder, sensor		Internal components (3 of 3) on page 367
Holder, sensor		Internal components (3 of 3) on page 367
Holder, separation		Multipurpose pickup assembly on page 377
Holder, sheet sensor		Internal components (2 of 3) on page 363
IC, photo interrupter	WG8-5624-000CN	Internal components (3 of 3) on page 367
IC, photo interrupter		Fusing assembly on page 383
IC, photo interrupter		Optional 1,500-sheet feeder paper pickup assembly on page 413
IN solenoid assembly		Multi-bin mailbox covers on page 417
Joint, left		Multi-bin mailbox covers on page 417
Joint, right		Multi-bin mailbox covers on page 417
Label, cassette operation		500-sheet cassette on page 373
Label, cassette operation		Optional 500-sheet feeder cassette on page 397
label, jam clear envelope		Multipurpose pickup assembly on page 377
Label, “Caution, high temp.”		Fusing assembly on page 383

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Lack, paper end limit, upper		Optional 1,500-sheet feeder paper pickup assembly on page 413
Laser scanner assembly	RM1-5465-000CN	Internal components (2 of 3) on page 363
Latch, front cover, upper		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Latch, front cover, upper		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Latch, rear door		Multi-bin mailbox main body (1 of 2) on page 419
Latch, rear door		Multi-bin mailbox main body (2 of 2) on page 423
Left cover assembly		Multi-bin mailbox covers on page 417
Left cover assembly (P4014)	RM1-5450-000CN	Covers—base unit on page 357
Left cover assembly (P4015/P4515)	RM1-4551-000CN	Covers—base unit on page 357
Left frame assembly		Optional 500-sheet paper feeder main body on page 393
Left hook assembly		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Left hook assembly		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Left side end support assembly		500-sheet cassette on page 373
Left side end support assembly		Optional 500-sheet feeder cassette on page 397
Lever		Multipurpose pickup assembly on page 377
Lever, bin flapper		Multi-bin mailbox main body (1 of 2) on page 419
Lever, bin flapper		Multi-bin mailbox main body (2 of 2) on page 423
Lever, height prevention		Internal components (2 of 3) on page 363
Lever, in flapper link		Multi-bin mailbox covers on page 417
Lever, lens		Internal components (2 of 3) on page 363

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Lever, lock		Optional 500-sheet paper feeder main body on page 393
Lever, paper delivery sensor		Fusing assembly on page 383
Lever, release, left		Fusing assembly on page 383
Lever, release, right		Fusing assembly on page 383
Lever, sensor		Fusing assembly on page 383
Lid, scanner protective duct		Internal components (2 of 3) on page 363
Lifter drive assembly	RM1-4585-000CN	Internal components (3 of 3) on page 367
Lifter drive assembly	RM1-1136-000CN	Optional 1,500-sheet feeder main body (1 of 2) on page 405
Lifter driver assembly		Optional 500-sheet paper feeder main body on page 393
Lifter tray assembly		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Lifter tray assembly		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Limiter, cassette torque	RC2-5262-000CN	500-sheet cassette on page 373
Limiter, cassette torque	RC2-5262-000CN	Optional 500-sheet feeder cassette on page 397
Limiter, cassette torque	RC2-5262-000CN	Optional 1,500-sheet feeder front door assembly on page 403
Limiter, multipurpose torque		Multipurpose pickup assembly on page 377
Lock side plate assembly		Optional 500-sheet paper feeder main body on page 393
Lower frame assembly		Optional 500-sheet paper feeder main body on page 393
Motor, DC, 24 V, drum drive	RL1-1659-000CN	Internal components (1 of 3) on page 359
Motor, DC, 24 V, main drive	RL1-1657-000CN	Internal components (2 of 3) on page 363
Motor, stepping	RH7-1603-020CN	Optional 1,500-sheet feeder main body (1 of 2) on page 405
Mount, lever		Internal components (2 of 3) on page 363
Multi-bin mailbox PCA	RM1-6224-000CN	Multi-bin mailbox PCA on page 391

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Multi-bin mailbox PCA	RM1-6224-000CN	Multi-bin mailbox main body (2 of 2) on page 423
Multipurpose frame assembly		Multipurpose pickup assembly on page 377
Multipurpose guide assembly		Multipurpose pickup assembly on page 377
Multipurpose pickup assembly	RM1-4563-000CN	Multipurpose pickup assembly on page 377
Multipurpose pickup gear assembly		Multipurpose pickup assembly on page 377
Multipurpose solenoid assembly		Multipurpose pickup assembly on page 377
Multipurpose tray assembly		Multipurpose pickup assembly on page 377
Multipurpose tray kit (contains 1 pickup roller, 1 feed roller, 1 separation roller)	CB506-67905	Multipurpose pickup assembly on page 377
Multipurpose tray pickup assembly	RM1-4563-000CN	Internal components (1 of 3) on page 359
Numbering assembly	RM1-5265-000CN	Optional 1,500-sheet feeder main body (1 of 2) on page 405
Oil damper assembly	RM1-0289-030CN	Optional 1,500-sheet feeder main body (1 of 2) on page 405
Optional 1,500-sheet feeder front door assembly	RM1-5255-000CN	Optional 1,500-sheet feeder front door assembly on page 403
Optional 500-sheet feeder cassette	RM1-4559-000CN	Optional 500-sheet feeder cassette on page 397
Pad, arm		Multi-bin mailbox main body (1 of 2) on page 419
Pad, arm		Multi-bin mailbox main body (2 of 2) on page 423
Paper delivery assembly	RM1-4529-000CN	Paper delivery assembly on page 381
Paper delivery assembly (also see Figure 8-12 Paper delivery assembly on page 380)	RM1-4529-000CN	Internal components (3 of 3) on page 367
Paper delivery drive assembly	RM1-4526-000CN	Internal components (3 of 3) on page 367
Paper detect sensor assembly	RM1-5264-000CN	Optional 1,500-sheet feeder paper pickup assembly on page 413
Paper feed assembly	RM1-4548-000CN	Power supply assembly on page 371
Paper feed roller assembly	RM1-4527-000CN	Internal components (1 of 3) on page 359

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Paper feed roller assembly	RM1-0037-020CN	Internal components (2 of 3) on page 363
Paper feed roller assembly	RM1-0037-020CN	500-sheet cassette on page 373
Paper feed roller assembly	RM1-0037-020CN	Optional 500-sheet paper feeder main body on page 393
Paper feed roller assembly	RM1-0037-020CN	Optional 500-sheet feeder cassette on page 397
Paper feed roller assembly	RM1-0037-020CN	Optional 1,500-sheet feeder front door assembly on page 403
Paper feed roller assembly	RM1-0037-020CN	Optional 1,500-sheet feeder paper pickup assembly on page 413
Paper feed shaft Z assembly	RM1-4562-000CN	Internal components (2 of 3) on page 363
Paper pickup assembly (see Figure 8-23 Optional 1,500-sheet feeder paper pickup assembly on page 412)		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Paper pickup drive assembly	RM1-4532-000CN	Internal components (2 of 3) on page 363
Paper pickup drive assembly	RM1-5262-000CN	Optional 1,500-sheet feeder main body (1 of 2) on page 405
Paper pickup roller assembly	RM1-0036-020CN	Internal components (2 of 3) on page 363
Paper pickup roller assembly	RM1-0036-020CN	Optional 500-sheet paper feeder main body on page 393
Paper pickup roller assembly	RM1-0036-020CN	Optional 1,500-sheet feeder paper pickup assembly on page 413
Paper pickup side plate assembly		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Paper pickup side plate assembly		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Paper sensing flag assembly		Multi-bin mailbox main body (1 of 2) on page 419
Paper size detect assembly	RM1-5261-000CN	Optional 1,500-sheet feeder main body (2 of 2) on page 409
Pickup drive side plate		Optional 500-sheet paper feeder main body on page 393
Pin		Multi-bin mailbox main body (1 of 2) on page 419

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Pin		Multi-bin mailbox main body (2 of 2) on page 423
Pin, cassette lock, left		500-sheet cassette on page 373
Pin, dowel		500-sheet cassette on page 373
Pin, dowel		Optional 500-sheet feeder cassette on page 397
Pin, dowel		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Pin, dowel		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Pin, front guide lock, right		500-sheet cassette on page 373
Pin, front guide lock, right		Optional 500-sheet feeder cassette on page 397
Pin, lifter tray stopper		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Pin, lifter tray stopper		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Pin, option	RC1-0306-000CN	Covers—base unit on page 357
Plate, damper support		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Plate, damper support		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Plate, front upper		Optional 1,500-sheet feeder paper pickup assembly on page 413
Plate, lifter wire cover		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Plate, lifter wire cover		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Plate, paper lifting		500-sheet cassette on page 373
Plate, paper lifting		Optional 500-sheet feeder cassette on page 397
Plate, pressure, left		Fusing assembly on page 383

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Plate, pressure, right		Fusing assembly on page 383
Plate, reinforcement		Optional 500-sheet paper feeder main body on page 393
Plate, RW crossmember		Internal components (2 of 3) on page 363
Plate, swing		Optional 1,500-sheet feeder paper pickup assembly on page 413
Power-supply assembly, 110-127 V (see Figure 8-9 Power supply assembly on page 370)		Internal components (1 of 3) on page 359
Power-supply assembly, 220-240 V (see Figure 8-9 Power supply assembly on page 370)		Internal components (1 of 3) on page 359
Presence sensor holder assembly		Multipurpose pickup assembly on page 377
Pressure roller gear assembly		Fusing assembly on page 383
Product roller kit (contains 2 feed rollers, 1 pickup roller)	CB506-67904	Optional 500-sheet paper feeder main body on page 393
Product roller kit (contains 2 feed rollers, 1 pickup roller)	CB506-67904	Optional 500-sheet feeder cassette on page 397
Product roller kit (contains 2 feed rollers, 1 pickup roller)	CB506-67904	Optional 1,500-sheet feeder paper pickup assembly on page 413
Pulley, 24T		Multi-bin mailbox main body (1 of 2) on page 419
Pulley, 24T		Multi-bin mailbox main body (1 of 2) on page 419
Pulley, 24T		Multi-bin mailbox main body (2 of 2) on page 423
Pulley, 24T		Multi-bin mailbox main body (2 of 2) on page 423
Pulley, wire, front		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Pulley, wire, front		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Pulley, wire, rear		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Pulley, wire, rear		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Pulley/Gear, 34T		Multi-bin mailbox main body (1 of 2) on page 419
Pulley/Gear, 34T		Multi-bin mailbox main body (2 of 2) on page 423

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Rear door assembly		Multi-bin mailbox covers on page 417
Reel, lifter wire		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Reel, lifter wire		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Registration assembly	RM1-5460-000CN	Internal components (1 of 3) on page 359
Remnant indication assembly	RM1-5259-000CN	Optional 1,500-sheet feeder main body (2 of 2) on page 409
Rib, cable guide		Fusing assembly on page 383
Right cover assembly		Multi-bin mailbox covers on page 417
Right cover assembly (P4014)	RM1-5449-000CN	Covers—base unit on page 357
Right cover assembly (P4015/P4515)	RM1-4550-000CN	Covers—base unit on page 357
Right frame assembly		Optional 500-sheet paper feeder main body on page 393
Right front guide assembly	RM1-4576-000CN	Internal components (2 of 3) on page 363
Right front guide assembly		Optional 500-sheet paper feeder main body on page 393
Right guide assembly		Optional 500-sheet paper feeder main body on page 393
Right guide assembly (P4014)	RM1-5451-000CN	Internal components (3 of 3) on page 367
Right guide assembly (P4015/P4515)	RM1-4558-000CN	Internal components (3 of 3) on page 367
Right side end support assembly		500-sheet cassette on page 373
Right side end support assembly		Optional 500-sheet feeder cassette on page 397
Right stopper assembly		Internal components (2 of 3) on page 363
Ring, E	XD9-0232-000CN	Internal components (2 of 3) on page 363
Ring, E		500-sheet cassette on page 373
Ring, E		Multipurpose pickup assembly on page 377

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Ring, E		Paper delivery assembly on page 381
Ring, E		Fusing assembly on page 383
Ring, E		Optional 500-sheet paper feeder main body on page 393
Ring, E		Optional 500-sheet paper feeder main body on page 393
Ring, E		Optional 500-sheet feeder cassette on page 397
Ring, E		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Ring, E		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Ring, E		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Ring, E		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Ring, E		Optional 1,500-sheet feeder paper pickup assembly on page 413
Ring, E		Multi-bin mailbox main body (1 of 2) on page 419
Ring, E		Multi-bin mailbox main body (2 of 2) on page 423
Ring, retainer		Optional 1,500-sheet feeder paper pickup assembly on page 413
Ring, slider		Optional 1,500-sheet feeder paper pickup assembly on page 413
Rod, din board		Internal components (3 of 3) on page 367
Rod, release, lower		Internal components (1 of 3) on page 359
Rod, release, upper		Internal components (1 of 3) on page 359
Rod, switch	RC2-2667-000CN	Internal components (2 of 3) on page 363
Rod, third fan		Internal components (3 of 3) on page 367
Roller, delivery intermediate		Paper delivery assembly on page 381

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Roller, delivery, inlet		Multi-bin mailbox main body (1 of 2) on page 419
Roller, delivery, inlet		Multi-bin mailbox main body (2 of 2) on page 423
Roller, face-down, lower		Paper delivery assembly on page 381
Roller, face-down, upper		Paper delivery assembly on page 381
Roller, face-up		Fusing assembly on page 383
Roller, feed	RL1-1663-000CN	Multipurpose pickup assembly on page 377
Roller, intermediate		Multi-bin mailbox main body (1 of 2) on page 419
Roller, intermediate		Multi-bin mailbox main body (2 of 2) on page 423
Roller, LU		500-sheet cassette on page 373
Roller, LU		Optional 500-sheet feeder cassette on page 397
Roller, paper feed		Optional 1,500-sheet feeder paper pickup assembly on page 413
Roller, paper feed		Optional 1,500-sheet feeder paper pickup assembly on page 413
Roller, pickup	RL1-1641-000CN	Multipurpose pickup assembly on page 377
Roller, positioning		500-sheet cassette on page 373
Roller, positioning		Optional 500-sheet feeder cassette on page 397
Roller, pressure		Fusing assembly on page 383
Roller, RD		500-sheet cassette on page 373
Roller, RD		Optional 500-sheet feeder cassette on page 397
Roller, separation	RL1-1654-000CN	Multipurpose pickup assembly on page 377
Saddle, wire		Internal components (2 of 3) on page 363
Saddle, wire		Optional 1,500-sheet feeder main body (1 of 2) on page 405

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Saddle, wire		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Screw with washer, M3x6		Fusing assembly on page 383
Screw with washer, M3x6		Fusing assembly on page 383
Screw, D, M3x8		Covers—base unit on page 357
Screw, D, M3x8	XA9-1671-000CN	Internal components (1 of 3) on page 359
Screw, D, M3x8		Internal components (2 of 3) on page 363
Screw, D, M3x8		Internal components (3 of 3) on page 367
Screw, D, M3x8		Power supply assembly on page 371
Screw, D, M3x8		Multipurpose pickup assembly on page 377
Screw, D, M3x8		Fusing assembly on page 383
Screw, D, M3x8		Optional 500-sheet paper feeder main body on page 393
Screw, D, M3x8		Multi-bin mailbox main body (1 of 2) on page 419
Screw, D, M3x8		Multi-bin mailbox main body (2 of 2) on page 423
Screw, flat head RS, M3x6	XA9-1464-000CN	Power supply assembly on page 371
Screw, M3x8		Fusing assembly on page 383
Screw, M4x5		Internal components (1 of 3) on page 359
Screw, machine, pan head, M3x6	XB1-1300-605CN	Power supply assembly on page 371
Screw, machine, truss head, M3x4		Multi-bin mailbox main body (1 of 2) on page 419
Screw, machine, truss head, M3x4		Multi-bin mailbox main body (2 of 2) on page 423
Screw, P, M3x8		Multi-bin mailbox covers on page 417
Screw, RS, M3x8		Fusing assembly on page 383
Screw, stepped		Fusing assembly on page 383
Screw, tap, binding head, M3x8	XB4-7300-809CN	Internal components (2 of 3) on page 363
Screw, tap, binding head, M3x8		Multi-bin mailbox covers on page 417

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Screw, tap, binding head, M3x8		Multi-bin mailbox main body (1 of 2) on page 419
Screw, tap, binding head, M3x8		Multi-bin mailbox main body (2 of 2) on page 423
Screw, tap, M3x6	XA9-1503-000CN	Internal components (1 of 3) on page 359
Screw, tap, M3x6		Internal components (2 of 3) on page 363
Screw, tap, M3x6		Internal components (3 of 3) on page 367
Screw, tap, M3x6		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Screw, tap, M3x6		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Screw, tap, M3x6		Optional 1,500-sheet feeder paper pickup assembly on page 413
screw, tap, M3x6		Optional 500-sheet paper feeder main body on page 393
Screw, tap, M4x12		500-sheet cassette on page 373
Screw, tap, M4x12		Optional 500-sheet feeder cassette on page 397
Screw, tap, pan head, M4x10		Internal components (2 of 3) on page 363
Screw, tap, pan head, M4x10		Internal components (3 of 3) on page 367
Screw, tap, pan head, M4x10		Power supply assembly on page 371
Screw, tap, pan head, M4x10		500-sheet cassette on page 373
Screw, tap, pan head, M4x10		Multipurpose pickup assembly on page 377
Screw, tap, pan head, M4x10		Optional 500-sheet paper feeder main body on page 393
Screw, tap, pan head, M4x10		Optional 500-sheet feeder cassette on page 397
Screw, tap, pan head, M4x10	XB4-7401-007CN	Optional 1,500-sheet paper feeder covers on page 401
Screw, tap, pan head, MM4x10		Multi-bin mailbox main body (1 of 2) on page 419
Screw, tap, pan head, MM4x10		Multi-bin mailbox main body (2 of 2) on page 423

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Screw, tap, S		Fusing assembly on page 383
Screw, tapping, pan head, M4x10		Covers—base unit on page 357
Screw, tapping, pan head, M4x10	XB4-7401-007CN	Internal components (1 of 3) on page 359
Screw, with washer, M3x6	XB2-7300-607CN	Internal components (3 of 3) on page 367
Screw, with washer, M3x6		Power supply assembly on page 371
Screw, with washer, M3x6		Optional 500-sheet paper feeder main body on page 393
Screw, with washer, M3x6		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Screw, with washer, M3x6		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Screw, with washer, M3x8	XA9-1420-000CN	Optional 1,500-sheet paper feeder covers on page 401
Screw, with washer, M3x8		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Screw, with washer, M3x8		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Screw, with washer, M4x6	XB2-7400-606CN	Power supply assembly on page 371
Sensor assembly	RM1-5096-000CN	Multi-bin mailbox main body (2 of 2) on page 423
Shaft, front cover hinge		Optional 1,500-sheet paper feeder covers on page 401
Shaft, lifter drive		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Shaft, lifter drive		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Shaft, load limit arm		Optional 1,500-sheet feeder paper pickup assembly on page 413
Shaft, lock joint		Optional 500-sheet paper feeder main body on page 393
Shaft, multipurpose cam, left		Multipurpose pickup assembly on page 377
Shaft, multipurpose cam, right		Multipurpose pickup assembly on page 377

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Shaft, paper feed roller		Optional 1,500-sheet feeder paper pickup assembly on page 413
Shaft, positioning roller auxiliary		500-sheet cassette on page 373
Shaft, positioning roller, auxiliary		Optional 500-sheet feeder cassette on page 397
Shaft, RD roller		500-sheet cassette on page 373
Shaft, retard drive	RL1-1658-000CN	Internal components (2 of 3) on page 363
Shaft, retard drive		Optional 500-sheet paper feeder main body on page 393
Shaft, retard gear holder		500-sheet cassette on page 373
Shaft, retard gear holder		Optional 500-sheet feeder cassette on page 397
Shaft, size sensing		500-sheet cassette on page 373
Shaft, size sensing		Multipurpose pickup assembly on page 377
Shaft, size sensing		Optional 500-sheet feeder cassette on page 397
Sheet, bottom frame, left		Multi-bin mailbox main body (1 of 2) on page 419
Sheet, bottom frame, left		Multi-bin mailbox main body (2 of 2) on page 423
Sheet, bottom frame, right		Multi-bin mailbox main body (1 of 2) on page 419
Sheet, bottom frame, right		Multi-bin mailbox main body (2 of 2) on page 423
Sheet, fusing protective		Fusing assembly on page 383
Sheet, protective, left		Fusing assembly on page 383
Sheet, protective, right lower		Fusing assembly on page 383
Sheet, protective, right upper		Fusing assembly on page 383
Sheet, solenoid damper		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Sheet, solenoid damper		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Side plate, drum drive		Internal components (1 of 3) on page 359

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Side plate, fuser drive		Internal components (3 of 3) on page 367
Side plate, fusing, left		Fusing assembly on page 383
Side plate, fusing, right		Fusing assembly on page 383
Side plate, paper feed drive		Internal components (2 of 3) on page 363
Size detect assembly	RM1-4525-000CN	Internal components (1 of 3) on page 359
Size detect assembly		Optional 500-sheet paper feeder main body on page 393
Sleeve guide assembly (110-127 V)		Fusing assembly on page 383
Sleeve guide assembly (220-240 V)		Fusing assembly on page 383
Solenoid	RK2-0270-000CN	Internal components (2 of 3) on page 363
Solenoid		Optional 500-sheet paper feeder main body on page 393
Solenoid		Multi-bin mailbox main body (1 of 2) on page 419
Spacer		Multi-bin mailbox main body (1 of 2) on page 419
Spacer		Multi-bin mailbox main body (2 of 2) on page 423
Spacer, frame		Internal components (1 of 3) on page 359
Spacer, scanner, front		Internal components (2 of 3) on page 363
Spacer, scanner, rear		Internal components (2 of 3) on page 363
Spacer, screw		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Spacer, screw		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Spring, compression		Internal components (1 of 3) on page 359
Spring, compression	RC1-0213-000CN	Internal components (2 of 3) on page 363
Spring, compression		Multipurpose pickup assembly on page 377
Spring, compression		Fusing assembly on page 383
Spring, compression		Optional 1,500-sheet feeder paper pickup assembly on page 413

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Spring, compression		Optional 1,500-sheet feeder paper pickup assembly on page 413
Spring, compression		Optional 1,500-sheet feeder paper pickup assembly on page 413
Spring, compression		Multi-bin mailbox main body (1 of 2) on page 419
Spring, compression		Multi-bin mailbox main body (1 of 2) on page 419
Spring, compression		Multi-bin mailbox main body (2 of 2) on page 423
Spring, compression		Multi-bin mailbox main body (2 of 2) on page 423
Spring, grounding		Internal components (3 of 3) on page 367
Spring, grounding	RU6-2105-000CN	Paper delivery assembly on page 381
Spring, grounding		Paper delivery assembly on page 381
Spring, leaf		Power supply assembly on page 371
Spring, leaf		Fusing assembly on page 383
Spring, tension	RU6-2115-000CN	Internal components (2 of 3) on page 363
Spring, tension	RC1-0198-000CN	Internal components (3 of 3) on page 367
Spring, tension		500-sheet cassette on page 373
Spring, tension		500-sheet cassette on page 373
Spring, tension		Multipurpose pickup assembly on page 377
Spring, tension		Multipurpose pickup assembly on page 377
Spring, tension		Multipurpose pickup assembly on page 377
Spring, tension	RC1-0133-000CN	Paper delivery assembly on page 381
Spring, tension		Optional 500-sheet paper feeder main body on page 393
Spring, tension		Optional 500-sheet paper feeder main body on page 393
Spring, tension		Optional 500-sheet feeder cassette on page 397

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Spring, tension		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Spring, tension		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Spring, tension		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Spring, tension		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Spring, tension		Multi-bin mailbox main body (1 of 2) on page 419
Spring, tension		Multi-bin mailbox main body (2 of 2) on page 423
Spring, torsion		Internal components (2 of 3) on page 363
Spring, torsion		Internal components (2 of 3) on page 363
Spring, torsion		500-sheet cassette on page 373
Spring, torsion		Fusing assembly on page 383
Spring, torsion		Fusing assembly on page 383
Spring, torsion		Fusing assembly on page 383
Spring, torsion		Fusing assembly on page 383
Spring, torsion		Optional 500-sheet feeder cassette on page 397
Spring, torsion		Optional 500-sheet feeder cassette on page 397
Spring, torsion		Optional 1,500-sheet paper feeder covers on page 401
Spring, torsion		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Spring, torsion		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Spring, torsion		Optional 1,500-sheet feeder paper pickup assembly on page 413
Stopper, C left (P4014)		Internal components (2 of 3) on page 363
Stopper, C left (P4015/P4515)		Internal components (2 of 3) on page 363

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Stopper, C right (P4014)		Internal components (2 of 3) on page 363
Stopper, C right (P4015/P4515)		Internal components (2 of 3) on page 363
Stopper, front door		Optional 1,500-sheet paper feeder covers on page 401
Stopper, rear door		Multi-bin mailbox main body (1 of 2) on page 419
Stopper, rear door		Multi-bin mailbox main body (2 of 2) on page 423
Support, DCU		Internal components (2 of 3) on page 363
Support, feed bushing		Optional 1,500-sheet feeder paper pickup assembly on page 413
Support, lifter arm		500-sheet cassette on page 373
Support, lifter arm		Optional 500-sheet feeder cassette on page 397
Support, lifter drive assembly		Internal components (3 of 3) on page 367
Support, lifter drive assembly		Optional 500-sheet paper feeder main body on page 393
Support, power supply switch		Internal components (1 of 3) on page 359
Support, release hook, left		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Support, release hook, left		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Support, wire pulley		Optional 1,500-sheet feeder main body (1 of 2) on page 405
Support, wire pulley		Optional 1,500-sheet feeder main body (2 of 2) on page 409
Tag holder assembly	RM1-4539-000CN	Internal components (2 of 3) on page 363
Thermistor unit	RK2-0359-000CN	Internal components (3 of 3) on page 367
Top bin flapper assembly		Multi-bin mailbox main body (1 of 2) on page 419
Top cover assembly (P4014)	RM1-5250-000CN	Covers—base unit on page 357

Table 8-26 Alphabetical parts list (continued)

Description	Part number	Table and page
Top cover assembly (P4015/P4515)	RM1-4552-000CN	Covers—base unit on page 357
Transfer roller assembly	CB506-67903	Internal components (1 of 3) on page 359
Upper entrance guide assembly		Fusing assembly on page 383
Upper plate, rear		Optional 500-sheet paper feeder main body on page 393
Upper plate, right		Optional 500-sheet paper feeder main body on page 393

Numerical parts list

Table 8-27 Numerical parts list

Part number	Description	Table and page
	Screw, tapping, pan head, M4x10	Covers—base unit on page 357
	Screw, D, M3x8	Covers—base unit on page 357
	Screw, M4x5	Internal components (1 of 3) on page 359
	Power-supply assembly, 110-127 V (see Figure 8-9 Power supply assembly on page 370)	Internal components (1 of 3) on page 359
	Power-supply assembly, 220-240 V (see Figure 8-9 Power supply assembly on page 370)	Internal components (1 of 3) on page 359
	Gear, 193T	Internal components (1 of 3) on page 359
	Guard, edge	Internal components (1 of 3) on page 359
	Clamp, cord	Internal components (1 of 3) on page 359
	Rod, release, upper	Internal components (1 of 3) on page 359
	Rod, release, lower	Internal components (1 of 3) on page 359
	Guide, gear shift, A	Internal components (1 of 3) on page 359
	Guide, gear shift, B	Internal components (1 of 3) on page 359
	Guide, scanner cable	Internal components (1 of 3) on page 359
	Guide, gear	Internal components (1 of 3) on page 359
	Guide, cassette right, rear	Internal components (1 of 3) on page 359
	Guide, cassette left, rear	Internal components (1 of 3) on page 359
	Support, power supply switch	Internal components (1 of 3) on page 359
	Foot	Internal components (1 of 3) on page 359
	Spacer, frame	Internal components (1 of 3) on page 359
	Side plate, drum drive	Internal components (1 of 3) on page 359
	Cap, drum gear	Internal components (1 of 3) on page 359

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Bushing	Internal components (1 of 3) on page 359
	Spring, compression	Internal components (1 of 3) on page 359
	Feeder sensor cable assembly	Internal components (2 of 3) on page 363
	Screw, tap, pan head, M4x10	Internal components (2 of 3) on page 363
	Screw, D, M3x8	Internal components (2 of 3) on page 363
	Spacer, scanner, front	Internal components (2 of 3) on page 363
	Spacer, scanner, rear	Internal components (2 of 3) on page 363
	Screw, tap, M3x6	Internal components (2 of 3) on page 363
	Guide, front	Internal components (2 of 3) on page 363
	Support, DCU	Internal components (2 of 3) on page 363
	Bushing	Internal components (2 of 3) on page 363
	Guide, cable, right front	Internal components (2 of 3) on page 363
	Lever, height prevention	Internal components (2 of 3) on page 363
	Holder, sheet sensor	Internal components (2 of 3) on page 363
	Guide, EPU, rear	Internal components (2 of 3) on page 363
	Clip, cable	Internal components (2 of 3) on page 363
	Saddle, wire	Internal components (2 of 3) on page 363
	Guide, lower	Internal components (2 of 3) on page 363
	Duct, scanner protective, 1	Internal components (2 of 3) on page 363
	Flag, shutter	Internal components (2 of 3) on page 363
	Spring, torsion	Internal components (2 of 3) on page 363
	Plate, RW crossmember	Internal components (2 of 3) on page 363

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Lever, lens	Internal components (2 of 3) on page 363
	Stopper, C right (P4015/P4515)	Internal components (2 of 3) on page 363
	Stopper, C right (P4014)	Internal components (2 of 3) on page 363
	Stopper, C left (P4015/P4515)	Internal components (2 of 3) on page 363
	Stopper, C left (P4014)	Internal components (2 of 3) on page 363
	Mount, lever	Internal components (2 of 3) on page 363
	Right stopper assembly	Internal components (2 of 3) on page 363
	Side plate, paper feed drive	Internal components (2 of 3) on page 363
	Gear, 29T	Internal components (2 of 3) on page 363
	Gear, 35T	Internal components (2 of 3) on page 363
	Gear, 37T/18T	Internal components (2 of 3) on page 363
	Gear, 17T/25T	Internal components (2 of 3) on page 363
	Spring, torsion	Internal components (2 of 3) on page 363
	Flag, paper presence detect	Internal components (2 of 3) on page 363
	Lid, scanner protective duct	Internal components (2 of 3) on page 363
	Duct, scanner protective, 2	Internal components (2 of 3) on page 363
	Support, lifter drive assembly	Internal components (3 of 3) on page 367
	Cover, connector	Internal components (3 of 3) on page 367
	Case, envelope	Internal components (3 of 3) on page 367
	Holder, sensor	Internal components (3 of 3) on page 367
	Front cassette LF guide assembly	Internal components (3 of 3) on page 367
	Screw, tap, pan head, M4x10	Internal components (3 of 3) on page 367

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Screw, D, M3x8	Internal components (3 of 3) on page 367
	Holder, sensor	Internal components (3 of 3) on page 367
	Guide, cartridge, right	Internal components (3 of 3) on page 367
	Rod, third fan	Internal components (3 of 3) on page 367
	Crossmember, front	Internal components (3 of 3) on page 367
	Crossmember, option, left	Internal components (3 of 3) on page 367
	Guide, rear	Internal components (3 of 3) on page 367
	Duct, second fan	Internal components (3 of 3) on page 367
	Duct, fourth fan	Internal components (3 of 3) on page 367
	Holder, DCU	Internal components (3 of 3) on page 367
	Guide, flat flexible cable	Internal components (3 of 3) on page 367
	Holder, check pin	Internal components (3 of 3) on page 367
	Spring, grounding	Internal components (3 of 3) on page 367
	Guide, left	Internal components (3 of 3) on page 367
	Guide, left, upper	Internal components (3 of 3) on page 367
	Holder, sensor	Internal components (3 of 3) on page 367
	Rod, din board	Internal components (3 of 3) on page 367
	Gear, 23T/19T	Internal components (3 of 3) on page 367
	Crossmember, option, right	Internal components (3 of 3) on page 367
	Side plate, fuser drive	Internal components (3 of 3) on page 367
	Gear, 17T	Internal components (3 of 3) on page 367
	Gear, 15T	Internal components (3 of 3) on page 367

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Gear, 25T/91T	Internal components (3 of 3) on page 367
	Gear, 33T	Internal components (3 of 3) on page 367
	Gear 35T	Internal components (3 of 3) on page 367
	Cable, option feeder	Internal components (3 of 3) on page 367
	Cable, OPT DEL	Internal components (3 of 3) on page 367
	Clamp, cable	Internal components (3 of 3) on page 367
	Screw, tap, M3x6	Internal components (3 of 3) on page 367
	Holder, inlet	Power supply assembly on page 371
	Holder, connector	Power supply assembly on page 371
	Guard, edge	Power supply assembly on page 371
	Spring, leaf	Power supply assembly on page 371
	Crossmember, fusing	Power supply assembly on page 371
	Screw, tap, pan head, M4x10	Power supply assembly on page 371
	Screw, D, M3x8	Power supply assembly on page 371
	Screw, with washer, M3x6	Power supply assembly on page 371
	Pin, front guide lock, right	500-sheet cassette on page 373
	Cover, gear	500-sheet cassette on page 373
	Flag, size sensing	500-sheet cassette on page 373
	Arm, lifter	500-sheet cassette on page 373
	Support, lifter arm	500-sheet cassette on page 373
	Bushing, lift arm	500-sheet cassette on page 373
	Holder, retard gear	500-sheet cassette on page 373

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Spring, tension	500-sheet cassette on page 373
	Spring, tension	500-sheet cassette on page 373
	Gear, 20T	500-sheet cassette on page 373
	Body, cassette	500-sheet cassette on page 373
	Roller, positioning	500-sheet cassette on page 373
	Claw, cassette	500-sheet cassette on page 373
	Roller, LU	500-sheet cassette on page 373
	Flange, positioning roller, right	500-sheet cassette on page 373
	Shaft, positioning roller auxiliary	500-sheet cassette on page 373
	Roller, RD	500-sheet cassette on page 373
	Gauge, fuel	500-sheet cassette on page 373
	Pin, cassette lock, left	500-sheet cassette on page 373
	Shaft, RD roller	500-sheet cassette on page 373
	Spring, torsion	500-sheet cassette on page 373
	Guide, nip	500-sheet cassette on page 373
	Plate, paper lifting	500-sheet cassette on page 373
	Gear, 88T	500-sheet cassette on page 373
	Gear, 14T	500-sheet cassette on page 373
	Gear, 14T	500-sheet cassette on page 373
	Gear, 14T	500-sheet cassette on page 373
	Gear, 15T/25T	500-sheet cassette on page 373
	Gear, 37T	500-sheet cassette on page 373

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Shaft, size sensing	500-sheet cassette on page 373
	Shaft, retard gear holder	500-sheet cassette on page 373
	Ring, E	500-sheet cassette on page 373
	Label, cassette operation	500-sheet cassette on page 373
	Right side end support assembly	500-sheet cassette on page 373
	Cassette rear assembly	500-sheet cassette on page 373
	Left side end support assembly	500-sheet cassette on page 373
	Front cassette assembly	500-sheet cassette on page 373
	Screw, tap, pan head, M4x10	500-sheet cassette on page 373
	Pin, dowel	500-sheet cassette on page 373
	Screw, tap, M4x12	500-sheet cassette on page 373
	Frame, multi, right	Multipurpose pickup assembly on page 377
	Guide, nip, left	Multipurpose pickup assembly on page 377
	Guide, nip, center	Multipurpose pickup assembly on page 377
	Guide, nip, right	Multipurpose pickup assembly on page 377
	Bushing	Multipurpose pickup assembly on page 377
	Bushing	Multipurpose pickup assembly on page 377
	Bushing	Multipurpose pickup assembly on page 377
	Bushing	Multipurpose pickup assembly on page 377
	Shaft, size sensing	Multipurpose pickup assembly on page 377
	Hinge, multi, left	Multipurpose pickup assembly on page 377
	Hinge, multi, right	Multipurpose pickup assembly on page 377

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	label, jam clear envelope	Multipurpose pickup assembly on page 377
	Cam	Multipurpose pickup assembly on page 377
	Lever	Multipurpose pickup assembly on page 377
	Shaft, multipurpose cam, left	Multipurpose pickup assembly on page 377
	Shaft, multipurpose cam, right	Multipurpose pickup assembly on page 377
	Cover, multipurpose spring, left	Multipurpose pickup assembly on page 377
	Cover, multipurpose spring, right	Multipurpose pickup assembly on page 377
	Gear, 15T/21T	Multipurpose pickup assembly on page 377
	Gear, 30T/34T	Multipurpose pickup assembly on page 377
	Gear, 30T	Multipurpose pickup assembly on page 377
	Cam/gear, 30T	Multipurpose pickup assembly on page 377
	Cam/gear, 30T	Multipurpose pickup assembly on page 377
	Gear, 14T	Multipurpose pickup assembly on page 377
	Spring, tension	Multipurpose pickup assembly on page 377
	Spring, compression	Multipurpose pickup assembly on page 377
	Spring, tension	Multipurpose pickup assembly on page 377
	Spring, tension	Multipurpose pickup assembly on page 377
	Multipurpose guide assembly	Multipurpose pickup assembly on page 377
	Presence sensor holder assembly	Multipurpose pickup assembly on page 377
	Multipurpose pickup gear assembly	Multipurpose pickup assembly on page 377
	Multipurpose frame assembly	Multipurpose pickup assembly on page 377
	Multipurpose tray assembly	Multipurpose pickup assembly on page 377

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Cable, multipurpose sensor	Multipurpose pickup assembly on page 377
	Limiter, multipurpose torque	Multipurpose pickup assembly on page 377
	Holder, separation	Multipurpose pickup assembly on page 377
	Screw, D, M3x8	Multipurpose pickup assembly on page 377
	Screw, tap, pan head, M4x10	Multipurpose pickup assembly on page 377
	Cover, roller	Multipurpose pickup assembly on page 377
	Ring, E	Multipurpose pickup assembly on page 377
	Multipurpose solenoid assembly	Multipurpose pickup assembly on page 377
	Roller, face-down, upper	Paper delivery assembly on page 381
	Deflector, delivery	Paper delivery assembly on page 381
	Ring, E	Paper delivery assembly on page 381
	Bushing, paper delivery, upper	Paper delivery assembly on page 381
	Bushing	Paper delivery assembly on page 381
	Spring, grounding	Paper delivery assembly on page 381
	Bushing, paper delivery, upper	Paper delivery assembly on page 381
	Frame, face-down	Paper delivery assembly on page 381
	Bushing	Paper delivery assembly on page 381
	Bushing	Paper delivery assembly on page 381
	Guide, paper delivery	Paper delivery assembly on page 381
	Flange, positioning roller, right	Paper delivery assembly on page 381
	Roller, delivery intermediate	Paper delivery assembly on page 381
	Roller, face-down, lower	Paper delivery assembly on page 381

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Gear, 21T	Paper delivery assembly on page 381
	Gear, 17T	Paper delivery assembly on page 381
	Gear, 20T	Paper delivery assembly on page 381
	Gear, 33T	Paper delivery assembly on page 381
	Gear, 18T	Paper delivery assembly on page 381
	Roller, pressure	Fusing assembly on page 383
	Sleeve guide assembly (110-127 V)	Fusing assembly on page 383
	Sleeve guide assembly (220-240 V)	Fusing assembly on page 383
	Guide, paper inlet, lower	Fusing assembly on page 383
	Holder, fusing sensor	Fusing assembly on page 383
	Lever, release, left	Fusing assembly on page 383
	Sheet, fusing protective	Fusing assembly on page 383
	Bushing	Fusing assembly on page 383
	Roller, face-up	Fusing assembly on page 383
	Spring, torsion	Fusing assembly on page 383
	Spring, torsion	Fusing assembly on page 383
	Side plate, fusing, left	Fusing assembly on page 383
	Spring, compression	Fusing assembly on page 383
	Plate, pressure, right	Fusing assembly on page 383
	Plate, pressure, left	Fusing assembly on page 383
	Bushing	Fusing assembly on page 383
	Bushing	Fusing assembly on page 383
	Flag, sensor, right	Fusing assembly on page 383
	Flag, sensor, left	Fusing assembly on page 383
	Lever, sensor	Fusing assembly on page 383
	Spring, torsion	Fusing assembly on page 383
	Spring, torsion	Fusing assembly on page 383
	Guide, cable, right	Fusing assembly on page 383
	Guide, cable, left	Fusing assembly on page 383
	Spring, leaf	Fusing assembly on page 383
	Bar, filter, rear	Fusing assembly on page 383

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Eliminator	Fusing assembly on page 383
	Holder, brush	Fusing assembly on page 383
	Rib, cable guide	Fusing assembly on page 383
	Cam	Fusing assembly on page 383
	Sheet, protective, right upper	Fusing assembly on page 383
	Sheet, protective, right lower	Fusing assembly on page 383
	Side plate, fusing, right	Fusing assembly on page 383
	Lever, release, right	Fusing assembly on page 383
	Guide, paper delivery, lower	Fusing assembly on page 383
	Screw, stepped	Fusing assembly on page 383
	Sheet, protective, left	Fusing assembly on page 383
	Gear, 18T	Fusing assembly on page 383
	Gear, 17T	Fusing assembly on page 383
	IC, photo interrupter	Fusing assembly on page 383
	Guide, paper delivery guide, upper	Fusing assembly on page 383
	Pressure roller gear assembly	Fusing assembly on page 383
	Upper entrance guide assembly	Fusing assembly on page 383
	Cable, FSR AC	Fusing assembly on page 383
	Cable, FSR DC	Fusing assembly on page 383
	Holder, fusing lever	Fusing assembly on page 383
	Screw, M3x8	Fusing assembly on page 383
	Screw, RS, M3x8	Fusing assembly on page 383
	Screw, D, M3x8	Fusing assembly on page 383
	Screw with washer, M3x6	Fusing assembly on page 383
	Screw with washer, M3x6	Fusing assembly on page 383
	Screw, tap, S	Fusing assembly on page 383
	Ring, E	Fusing assembly on page 383
	Lever, paper delivery sensor	Fusing assembly on page 383
	Label, “Caution, high temp.”	Fusing assembly on page 383
	Solenoid	Optional 500-sheet paper feeder main body on page 393
	Size detect assembly	Optional 500-sheet paper feeder main body on page 393
	Front top plate assembly	Optional 500-sheet paper feeder main body on page 393

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Cable, interface, upper	Optional 500-sheet paper feeder main body on page 393
	Pickup drive side plate	Optional 500-sheet paper feeder main body on page 393
	Cable, size sensor	Optional 500-sheet paper feeder main body on page 393
	500-page feeder driver PCA	Optional 500-sheet paper feeder main body on page 393
	Connector, drawer, 6P	Optional 500-sheet paper feeder main body on page 393
	Lifter driver assembly	Optional 500-sheet paper feeder main body on page 393
	Spring, tension	Optional 500-sheet paper feeder main body on page 393
	Support, lifter drive assembly	Optional 500-sheet paper feeder main body on page 393
	Bushing	Optional 500-sheet paper feeder main body on page 393
	Guide, cassette right, rear	Optional 500-sheet paper feeder main body on page 393
	Guide, cassette left, rear	Optional 500-sheet paper feeder main body on page 393
	Plate, reinforcement	Optional 500-sheet paper feeder main body on page 393
	Guide, left	Optional 500-sheet paper feeder main body on page 393
	Guide, cable	Optional 500-sheet paper feeder main body on page 393
	Shaft, lock joint	Optional 500-sheet paper feeder main body on page 393
	Arm, lock	Optional 500-sheet paper feeder main body on page 393
	Lever, lock	Optional 500-sheet paper feeder main body on page 393
	Upper plate, rear	Optional 500-sheet paper feeder main body on page 393
	Upper plate, right	Optional 500-sheet paper feeder main body on page 393
	Shaft, retard drive	Optional 500-sheet paper feeder main body on page 393
	Gear, 23T	Optional 500-sheet paper feeder main body on page 393
	Gear, 14T	Optional 500-sheet paper feeder main body on page 393

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Gear, 16T	Optional 500-sheet paper feeder main body on page 393
	Spring, tension	Optional 500-sheet paper feeder main body on page 393
	Left frame assembly	Optional 500-sheet paper feeder main body on page 393
	Right frame assembly	Optional 500-sheet paper feeder main body on page 393
	Front cassette left guide assembly	Optional 500-sheet paper feeder main body on page 393
	Lower frame assembly	Optional 500-sheet paper feeder main body on page 393
	Lock side plate assembly	Optional 500-sheet paper feeder main body on page 393
	Right front guide assembly	Optional 500-sheet paper feeder main body on page 393
	Right guide assembly	Optional 500-sheet paper feeder main body on page 393
	Screw, with washer, M3x6	Optional 500-sheet paper feeder main body on page 393
	screw, tap, M3x6	Optional 500-sheet paper feeder main body on page 393
	Screw, D, M3x8	Optional 500-sheet paper feeder main body on page 393
	Screw, tap, pan head, M4x10	Optional 500-sheet paper feeder main body on page 393
	Ring, E	Optional 500-sheet paper feeder main body on page 393
	Ring, E	Optional 500-sheet paper feeder main body on page 393
	Pin, front guide lock, right	Optional 500-sheet feeder cassette on page 397
	Cover, gear	Optional 500-sheet feeder cassette on page 397
	Flag, size sensing	Optional 500-sheet feeder cassette on page 397
	Arm, lifter	Optional 500-sheet feeder cassette on page 397
	Support, lifter arm	Optional 500-sheet feeder cassette on page 397
	Bushing, lifter arm	Optional 500-sheet feeder cassette on page 397
	Holder, retard gear	Optional 500-sheet feeder cassette on page 397

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Spring, tension	Optional 500-sheet feeder cassette on page 397
	Spring, torsion	Optional 500-sheet feeder cassette on page 397
	Gear, 20T	Optional 500-sheet feeder cassette on page 397
	Body, cassette	Optional 500-sheet feeder cassette on page 397
	Roller, positioning	Optional 500-sheet feeder cassette on page 397
	Claw, cassette	Optional 500-sheet feeder cassette on page 397
	Roller, LU	Optional 500-sheet feeder cassette on page 397
	Flange, positioning roller, right	Optional 500-sheet feeder cassette on page 397
	Shaft, positioning roller, auxiliary	Optional 500-sheet feeder cassette on page 397
	Roller, RD	Optional 500-sheet feeder cassette on page 397
	Gauge, fuel	Optional 500-sheet feeder cassette on page 397
		Optional 500-sheet feeder cassette on page 397
		Optional 500-sheet feeder cassette on page 397
	Spring, torsion	Optional 500-sheet feeder cassette on page 397
	Guide, nip	Optional 500-sheet feeder cassette on page 397
	Plate, paper lifting	Optional 500-sheet feeder cassette on page 397
	Gear, 88T	Optional 500-sheet feeder cassette on page 397
	Gear, 14T	Optional 500-sheet feeder cassette on page 397
	Gear, 14T	Optional 500-sheet feeder cassette on page 397
	Gear, 14T	Optional 500-sheet feeder cassette on page 397
	Gear, 15T/25T	Optional 500-sheet feeder cassette on page 397
	Gear, 37T	Optional 500-sheet feeder cassette on page 397

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Shaft, size sensing	Optional 500-sheet feeder cassette on page 397
	Shaft, retard gear holder	Optional 500-sheet feeder cassette on page 397
	Ring, E	Optional 500-sheet feeder cassette on page 397
	Label, cassette operation	Optional 500-sheet feeder cassette on page 397
	Right side end support assembly	Optional 500-sheet feeder cassette on page 397
	Cassette rear assembly	Optional 500-sheet feeder cassette on page 397
	Left side end support assembly	Optional 500-sheet feeder cassette on page 397
	Front cassette assembly	Optional 500-sheet feeder cassette on page 397
	Screw, tap, pan head, M4x10	Optional 500-sheet feeder cassette on page 397
	Pin, dowel	Optional 500-sheet feeder cassette on page 397
	Screw, tap, M4x12	Optional 500-sheet feeder cassette on page 397
	Arm, front cover support	Optional 1,500-sheet paper feeder covers on page 401
	Stopper, front door	Optional 1,500-sheet paper feeder covers on page 401
	Spring, torsion	Optional 1,500-sheet paper feeder covers on page 401
	Shaft, front cover hinge	Optional 1,500-sheet paper feeder covers on page 401
	Gear, 16T	Optional 1,500-sheet paper feeder covers on page 401
	Paper pickup assembly (see Figure 8-23 Optional 1,500-sheet feeder paper pickup assembly on page 412)	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Holder, connector	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Pin, lifter tray stopper	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Sheet, solenoid damper	Optional 1,500-sheet feeder main body (1 of 2) on page 405

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Latch, front cover, upper	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Block, front cover pushing	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Guide, paper set, right	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Guide, paper set, left	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Block, paper size sensor	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Reel, lifter wire	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Cover, lifter wire reel	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Support, wire pulley	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Cover, pulley	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Shaft, lifter drive	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Pulley, wire, front	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Pulley, wire, rear	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Cover, lifter wire reel	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Plate, lifter wire cover	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Plate, damper support	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Support, release hook, left	Optional 1,500-sheet feeder main body (1 of 2) on page 405

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Holder, hinge shaft, lower	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Guide, paper set, front	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Bushing	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Gear, 14T	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Gear, 15T	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Gear, 19T/39T	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Spring, tension	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Spring, tension	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Spring, torsion	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Gear, 16T	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Spacer, screw	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Frame, rear	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Frame, lower	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Frame, right	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Frame, left	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Saddle, wire	Optional 1,500-sheet feeder main body (1 of 2) on page 405

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Lifter tray assembly	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Paper pickup side plate assembly	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Left hook assembly	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Screw, with washer, M3x8	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Screw, tap, M3x6	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Screw, with washer, M3x6	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Ring, E	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Ring, E	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Pin, dowel	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Foot	Optional 1,500-sheet feeder main body (1 of 2) on page 405
	Holder, connector	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Pin, lifter tray stopper	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Sheet, solenoid damper	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Latch, front cover, upper	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Block, front cover pushing	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Guide, paper set, right	Optional 1,500-sheet feeder main body (2 of 2) on page 409

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Guide, paper set, left	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Block, paper size sensor	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Reel, lifter wire	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Cover, lifter wire reel	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Support, wire pulley	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Cover, pulley	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Shaft, lifter drive	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Pulley, wire, front	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Pulley, wire, rear	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Cover, lifter wire reel	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Plate, lifter wire cover	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Plate, damper support	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Support, release hook, left	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Holder, hinge shaft, lower	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Guide, paper set, front	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Bushing	Optional 1,500-sheet feeder main body (2 of 2) on page 409

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Gear, 14T	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Gear, 15T	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Gear, 19T/39T	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Spring, tension	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Spring, tension	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Spring, torsion	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Gear, 16T	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Spacer, screw	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Frame, rear	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Frame, lower	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Frame, right	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Frame, left	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Saddle, wire	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Lifter tray assembly	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Paper pickup side plate assembly	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Left hook assembly	Optional 1,500-sheet feeder main body (2 of 2) on page 409

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Screw, with washer, M3x8	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Screw, tap, M3x6	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Screw, with washer, M3x6	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Ring, E	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Ring, E	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Pin, dowel	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Foot	Optional 1,500-sheet feeder main body (2 of 2) on page 409
	Bushing, feed shaft	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Gear, 23T	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Arm, pick	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Plate, swing	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Support, feed bushing	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Holder, feed shaft	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Gear, 18T	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Spring, compression	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Gear, 16T	Optional 1,500-sheet feeder paper pickup assembly on page 413

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Screw, tap, M3x6	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Gear, 14T	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Spring, compression	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Ring, retainer	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Ring, slider	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Arm, paper load limit	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Shaft, load limit arm	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Holder, load limit arm	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Guide, paper outlet	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Lack, paper end limit, upper	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Bushing	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Roller, paper feed	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Roller, paper feed	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Shaft, paper feed roller	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Flag, paper feed sensor	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Holder, paper feed sensor flag	Optional 1,500-sheet feeder paper pickup assembly on page 413

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Spring, torsion	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Plate, front upper	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Bushing	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Spring, compression	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Guide, paper feed sensor cable	Optional 1,500-sheet feeder paper pickup assembly on page 413
	IC, photo interrupter	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Ring, E	Optional 1,500-sheet feeder paper pickup assembly on page 413
	Cover, front	Multi-bin mailbox covers on page 417
	Cover, top	Multi-bin mailbox covers on page 417
	Left cover assembly	Multi-bin mailbox covers on page 417
	Right cover assembly	Multi-bin mailbox covers on page 417
	Rear door assembly	Multi-bin mailbox covers on page 417
	Cable, stacker drawer	Multi-bin mailbox covers on page 417
	Joint, left	Multi-bin mailbox covers on page 417
	Joint, right	Multi-bin mailbox covers on page 417
	Lever, in flapper link	Multi-bin mailbox covers on page 417
	IN solenoid assembly	Multi-bin mailbox covers on page 417
	Screw, tap, binding head, M3x8	Multi-bin mailbox covers on page 417
	Frame, base	Multi-bin mailbox covers on page 417

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Screw, P, M3x8	Multi-bin mailbox covers on page 417
	Paper sensing flag assembly	Multi-bin mailbox main body (1 of 2) on page 419
	Top bin flapper assembly	Multi-bin mailbox main body (1 of 2) on page 419
	Bin flapper assembly	Multi-bin mailbox main body (1 of 2) on page 419
	Center bin flapper assembly	Multi-bin mailbox main body (1 of 2) on page 419
	Cable, bin solenoid	Multi-bin mailbox main body (1 of 2) on page 419
	Bin assembly	Multi-bin mailbox main body (1 of 2) on page 419
	Solenoid	Multi-bin mailbox main body (1 of 2) on page 419
	Frame, base	Multi-bin mailbox main body (1 of 2) on page 419
	Pad, arm	Multi-bin mailbox main body (1 of 2) on page 419
	Guide, cable, L	Multi-bin mailbox main body (1 of 2) on page 419
	Latch, rear door	Multi-bin mailbox main body (1 of 2) on page 419
	Bushing	Multi-bin mailbox main body (1 of 2) on page 419
	Stopper, rear door	Multi-bin mailbox main body (1 of 2) on page 419
	Spring, tension	Multi-bin mailbox main body (1 of 2) on page 419
	Pin	Multi-bin mailbox main body (1 of 2) on page 419
	Roller, delivery, inlet	Multi-bin mailbox main body (1 of 2) on page 419
	Bushing, pressure roller	Multi-bin mailbox main body (1 of 2) on page 419
	Bushing	Multi-bin mailbox main body (1 of 2) on page 419
	Roller, intermediate	Multi-bin mailbox main body (1 of 2) on page 419
	Cover, crossmember	Multi-bin mailbox main body (1 of 2) on page 419
	Spacer	Multi-bin mailbox main body (1 of 2) on page 419

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Pulley, 24T	Multi-bin mailbox main body (1 of 2) on page 419
	Gear, 34T/Pulley, 24T	Multi-bin mailbox main body (1 of 2) on page 419
	Pulley, 24T	Multi-bin mailbox main body (1 of 2) on page 419
	Bushing	Multi-bin mailbox main body (1 of 2) on page 419
	Spring, compression	Multi-bin mailbox main body (1 of 2) on page 419
	Gear, 24T	Multi-bin mailbox main body (1 of 2) on page 419
	Gear, 41T	Multi-bin mailbox main body (1 of 2) on page 419
	Gear, 24T/35T/48T	Multi-bin mailbox main body (1 of 2) on page 419
	Gear, 35T	Multi-bin mailbox main body (1 of 2) on page 419
	Gear, 26T	Multi-bin mailbox main body (1 of 2) on page 419
	Pulley/Gear, 34T	Multi-bin mailbox main body (1 of 2) on page 419
	Belt, timing	Multi-bin mailbox main body (1 of 2) on page 419
	Delivery inlet roller assembly	Multi-bin mailbox main body (1 of 2) on page 419
	Lever, bin flapper	Multi-bin mailbox main body (1 of 2) on page 419
	Base, bin lever	Multi-bin mailbox main body (1 of 2) on page 419
	Guide, crossmember	Multi-bin mailbox main body (1 of 2) on page 419
	Spring, compression	Multi-bin mailbox main body (1 of 2) on page 419
	Screw, D, M3x8	Multi-bin mailbox main body (1 of 2) on page 419
	Screw, machine, truss head, M3x4	Multi-bin mailbox main body (1 of 2) on page 419
	Screw, tap, binding head, M3x8	Multi-bin mailbox main body (1 of 2) on page 419
	Screw, tap, pan head, MM4x10	Multi-bin mailbox main body (1 of 2) on page 419
	Ring, E	Multi-bin mailbox main body (1 of 2) on page 419

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Sheet, bottom frame, right	Multi-bin mailbox main body (1 of 2) on page 419
	Sheet, bottom frame, left	Multi-bin mailbox main body (1 of 2) on page 419
	Cable, sensor PCA	Multi-bin mailbox main body (2 of 2) on page 423
	Cable guide assembly	Multi-bin mailbox main body (2 of 2) on page 423
	Frame, base	Multi-bin mailbox main body (2 of 2) on page 423
	Pad, arm	Multi-bin mailbox main body (2 of 2) on page 423
	Guide, cable, L	Multi-bin mailbox main body (2 of 2) on page 423
	Latch, rear door	Multi-bin mailbox main body (2 of 2) on page 423
	Bushing	Multi-bin mailbox main body (2 of 2) on page 423
	Stopper, rear door	Multi-bin mailbox main body (2 of 2) on page 423
	Spring, tension	Multi-bin mailbox main body (2 of 2) on page 423
	Pin	Multi-bin mailbox main body (2 of 2) on page 423
	Roller, delivery, inlet	Multi-bin mailbox main body (2 of 2) on page 423
	Bushing, pressure roller	Multi-bin mailbox main body (2 of 2) on page 423
	Bushing	Multi-bin mailbox main body (2 of 2) on page 423
	Roller, intermediate	Multi-bin mailbox main body (2 of 2) on page 423
	Cover, crossmember	Multi-bin mailbox main body (2 of 2) on page 423
	Spacer	Multi-bin mailbox main body (2 of 2) on page 423
	Pulley, 24T	Multi-bin mailbox main body (2 of 2) on page 423
	Gear, 34T/Pulley, 24T	Multi-bin mailbox main body (2 of 2) on page 423
	Pulley, 24T	Multi-bin mailbox main body (2 of 2) on page 423
	Bushing	Multi-bin mailbox main body (2 of 2) on page 423

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
	Spring, compression	Multi-bin mailbox main body (2 of 2) on page 423
	Gear, 24T	Multi-bin mailbox main body (2 of 2) on page 423
	Gear, 41T	Multi-bin mailbox main body (2 of 2) on page 423
	Gear, 24T/35T/48T	Multi-bin mailbox main body (2 of 2) on page 423
	Gear, 35T	Multi-bin mailbox main body (2 of 2) on page 423
	Gear, 26T	Multi-bin mailbox main body (2 of 2) on page 423
	Pulley/Gear, 34T	Multi-bin mailbox main body (2 of 2) on page 423
	Belt, timing	Multi-bin mailbox main body (2 of 2) on page 423
	Delivery inlet roller assembly	Multi-bin mailbox main body (2 of 2) on page 423
	Lever, bin flapper	Multi-bin mailbox main body (2 of 2) on page 423
	Base, bin lever	Multi-bin mailbox main body (2 of 2) on page 423
	Guide, crossmember	Multi-bin mailbox main body (2 of 2) on page 423
	Spring, compression	Multi-bin mailbox main body (2 of 2) on page 423
	Screw, D, M3x8	Multi-bin mailbox main body (2 of 2) on page 423
	Screw, machine, truss head, M3x4	Multi-bin mailbox main body (2 of 2) on page 423
	Screw, tap, binding head, M3x8	Multi-bin mailbox main body (2 of 2) on page 423
	Screw, tap, pan head, MM4x10	Multi-bin mailbox main body (2 of 2) on page 423
	Ring, E	Multi-bin mailbox main body (2 of 2) on page 423
	Sheet, bottom frame, right	Multi-bin mailbox main body (2 of 2) on page 423
	Sheet, bottom frame, left	Multi-bin mailbox main body (2 of 2) on page 423
CB437-67901 (new)	Formatter assembly (base models)	PCAs—base unit on page 387
CB437-69001 (exchange)	Formatter assembly (base models)	PCAs—base unit on page 387
CB438-67901 (new)	Formatter assembly (network models)	PCAs—base unit on page 387

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
CB438-69001 (exchange)	Formatter assembly (network models)	PCAs—base unit on page 387
CB506-67901	Fuser assembly (110-127 V) (also see Figure 8-13 Fusing assembly on page 382)	Internal components (3 of 3) on page 367
CB506-67901	Fusing assembly (110-127 V)	Fusing assembly on page 383
CB506-67902	Fuser assembly (220-240 V) (also see Figure 8-13 Fusing assembly on page 382)	Internal components (3 of 3) on page 367
CB506-67902	Fusing assembly (220-240 V)	Fusing assembly on page 383
CB506-67903	Transfer roller assembly	Internal components (1 of 3) on page 359
CB506-67904	Product roller kit (contains 2 feed rollers, 1 pickup roller)	Optional 500-sheet paper feeder main body on page 393
CB506-67904	Product roller kit (contains 2 feed rollers, 1 pickup roller)	Optional 500-sheet feeder cassette on page 397
CB506-67904	Product roller kit (contains 2 feed rollers, 1 pickup roller)	Optional 1,500-sheet feeder paper pickup assembly on page 413
CB506-67905	Multipurpose tray kit (contains 1 pickup roller, 1 feed roller, 1 separation roller)	Multipurpose pickup assembly on page 377
RC1-0133-000CN	Spring, tension	Paper delivery assembly on page 381
RC1-0136-000CN	Bushing, paper delivery	Internal components (3 of 3) on page 367
RC1-0198-000CN	Spring, tension	Internal components (3 of 3) on page 367
RC1-0206-000CN	Bushing	Internal components (2 of 3) on page 363
RC1-0213-000CN	Spring, compression	Internal components (2 of 3) on page 363
RC1-0264-000CN	Bushing, feed shaft	Internal components (2 of 3) on page 363
RC1-0306-000CN	Pin, option	Covers—base unit on page 357
RC1-0386-000CN	Guide, connecting cable	Internal components (1 of 3) on page 359
RC2-2459-000CN	Cover, option	Covers—base unit on page 357
RC2-2468-000CN	Cover, formatter (P4015/P4515)	Covers—base unit on page 357
RC2-2475-000CN	Cover, right front (P4015/P4515)	Covers—base unit on page 357
RC2-2476-000CN	Cover, envelope connector (P4015/P4515)	Covers—base unit on page 357

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
RC2-2478-000CN	Cover, right rear (P4015/P4515)	Covers—base unit on page 357
RC2-2480-000CN	Arm, release, A	Internal components (1 of 3) on page 359
RC2-2481-000CN	Arm, release, B	Internal components (1 of 3) on page 359
RC2-2510-000CN	Cover, duplexing outer (P4015/P4515)	Covers—base unit on page 357
RC2-2524-000CN	Flag, paper detect	Optional 1,500-sheet feeder paper pickup assembly on page 413
RC2-2584-000CN	Cover, lock	Optional 1,500-sheet paper feeder covers on page 401
RC2-2640-000CN	Cover, rear	Optional 1,500-sheet paper feeder covers on page 401
RC2-2641-000CN	Cover, right	Optional 1,500-sheet paper feeder covers on page 401
RC2-2642-000CN	Cover, left	Optional 1,500-sheet paper feeder covers on page 401
RC2-2643-000CN	Cover, left lower	Optional 1,500-sheet paper feeder covers on page 401
RC2-2667-000CN	Rod, switch	Internal components (2 of 3) on page 363
RC2-5239-000CN	Cover, legal (P4015/P4515)	Covers—base unit on page 357
RC2-5262-000CN	Limiter, cassette torque	500-sheet cassette on page 373
RC2-5262-000CN	Limiter, cassette torque	Optional 500-sheet feeder cassette on page 397
RC2-5262-000CN	Limiter, cassette torque	Optional 1,500-sheet feeder front door assembly on page 403
RC2-5757-000CN	Cover, formatter (P4014)	Covers—base unit on page 357
RC2-5758-000CN	Cover, right front (P4014)	Covers—base unit on page 357
RC2-5759-000CN	Cover, envelope connector (P4014)	Covers—base unit on page 357
RC2-5760-000CN	Cover, duplexing outer (P4014)	Covers—base unit on page 357
RC2-5761-000CN	Cover, legal (P4014)	Covers—base unit on page 357
RC2-5768-000CN	Cover, right rear (P4014)	Covers—base unit on page 357

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
RC2-5783-000CN	Bushing	Internal components (2 of 3) on page 363
RH7-1603-020CN	Motor, stepping	Optional 1,500-sheet feeder main body (1 of 2) on page 405
RK2-0270-000CN	Solenoid	Internal components (2 of 3) on page 363
RK2-0359-000CN	Thermistor unit	Internal components (3 of 3) on page 367
RK2-1988-000CN	Fan	Internal components (3 of 3) on page 367
RK2-1989-000CN	Fan	Internal components (3 of 3) on page 367
RK2-1991-000CN	Fan	Internal components (3 of 3) on page 367
RK2-1992-000CN	Fan	Internal components (3 of 3) on page 367
RL1-1641-000CN	Roller, pickup	Multipurpose pickup assembly on page 377
RL1-1654-000CN	Roller, separation	Multipurpose pickup assembly on page 377
RL1-1657-000CN	Motor, DC, 24 V, main drive	Internal components (2 of 3) on page 363
RL1-1658-000CN	Shaft, retard drive	Internal components (2 of 3) on page 363
RL1-1659-000CN	Motor, DC, 24 V, drum drive	Internal components (1 of 3) on page 359
RL1-1663-000CN	Roller, feed	Multipurpose pickup assembly on page 377
RL1-1667-000CN	Cover, envelope	Internal components (1 of 3) on page 359
RM1-0036-020CN	Paper pickup roller assembly	Internal components (2 of 3) on page 363
RM1-0036-020CN	Paper pickup roller assembly	Optional 500-sheet paper feeder main body on page 393
RM1-0036-020CN	Paper pickup roller assembly	Optional 1,500-sheet feeder paper pickup assembly on page 413
RM1-0037-020CN	Paper feed roller assembly	Internal components (2 of 3) on page 363
RM1-0037-020CN	Paper feed roller assembly	500-sheet cassette on page 373
RM1-0037-020CN	Paper feed roller assembly	Optional 500-sheet paper feeder main body on page 393

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
RM1-0037-020CN	Paper feed roller assembly	Optional 500-sheet feeder cassette on page 397
RM1-0037-020CN	Paper feed roller assembly	Optional 1,500-sheet feeder front door assembly on page 403
RM1-0037-020CN	Paper feed roller assembly	Optional 1,500-sheet feeder paper pickup assembly on page 413
RM1-0289-030CN	Oil damper assembly	Optional 1,500-sheet feeder main body (1 of 2) on page 405
RM1-1136-000CN	Lifter drive assembly	Optional 1,500-sheet feeder main body (1 of 2) on page 405
RM1-4525-000CN	Size detect assembly	Internal components (1 of 3) on page 359
RM1-4526-000CN	Paper delivery drive assembly	Internal components (3 of 3) on page 367
RM1-4527-000CN	Paper feed roller assembly	Internal components (1 of 3) on page 359
RM1-4529-000CN	Paper delivery assembly (also see Figure 8-12 Paper delivery assembly on page 380)	Internal components (3 of 3) on page 367
RM1-4529-000CN	Paper delivery assembly	Paper delivery assembly on page 381
RM1-4531-000CN	Face-up tray assembly (P4015/P4515)	Covers—base unit on page 357
RM1-4532-000CN	Paper pickup drive assembly	Internal components (2 of 3) on page 363
RM1-4534-000CN	Front cover assembly	Covers—base unit on page 357
RM1-4539-000CN	Tag holder assembly	Internal components (2 of 3) on page 363
RM1-4548-000CN	Paper feed assembly	Power supply assembly on page 371
RM1-4549-000CN	Electrical components assembly (110-127 V)	Power supply assembly on page 371
RM1-4549-000CN	Electrical components assembly (110-127 V)	PCAs—base unit on page 387
RM1-4550-000CN	Right cover assembly (P4015/P4515)	Covers—base unit on page 357
RM1-4551-000CN	Left cover assembly (P4015/P4515)	Covers—base unit on page 357
RM1-4552-000CN	Top cover assembly (P4015/P4515)	Covers—base unit on page 357
RM1-4558-000CN	Right guide assembly (P4015/P4515)	Internal components (3 of 3) on page 367

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
RM1-4559-000CN	500-sheet tray cassette	Internal components (1 of 3) on page 359
RM1-4559-000CN	500-sheet cassette	500-sheet cassette on page 373
RM1-4559-000CN	Optional 500-sheet feeder cassette	Optional 500-sheet feeder cassette on page 397
RM1-4562-000CN	Paper feed shaft Z assembly	Internal components (2 of 3) on page 363
RM1-4563-000CN	Multipurpose tray pickup assembly	Internal components (1 of 3) on page 359
RM1-4563-000CN	Multipurpose pickup assembly	Multipurpose pickup assembly on page 377
RM1-4576-000CN	Right front guide assembly	Internal components (2 of 3) on page 363
RM1-4578-000CN	Electrical components assembly (220-240 V)	Power supply assembly on page 371
RM1-4578-000CN	Electrical components assembly (220-240 V)	PCAs—base unit on page 387
RM1-4582-000CN	DC controller PCA	Internal components (3 of 3) on page 367
RM1-4582-000CN	DC controller PCA	PCAs—base unit on page 387
RM1-4585-000CN	Lifter drive assembly	Internal components (3 of 3) on page 367
RM1-5051-000CN	Fuser motor assembly	Internal components (3 of 3) on page 367
RM1-5059-000CN	Control panel assembly (P4015/P4515)	Covers—base unit on page 357
RM1-5060-000CN	Control panel assembly (P4014)	Covers—base unit on page 357
RM1-5078-000CN	Cable, inlet (110-127 V)	Power supply assembly on page 371
RM1-5079-000CN	Cable, inlet (220-240 V)	Power supply assembly on page 371
RM1-5080-000CN	Cable, door switch	Internal components (3 of 3) on page 367
RM1-5081-000CN	Cable, full sensor	Internal components (3 of 3) on page 367
RM1-5082-000CN	Cable, panel	Internal components (3 of 3) on page 367
RM1-5085-000CN	Cable, envelope feeder	Internal components (3 of 3) on page 367
RM1-5087-000CN	Cable, laser	Internal components (2 of 3) on page 363
RM1-5088-000CN	Cable, fuser motor	Internal components (3 of 3) on page 367

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
RM1-5089-000CN	Cable, feed motor	Internal components (2 of 3) on page 363
RM1-5090-000CN	Cable, drum motor	Internal components (1 of 3) on page 359
RM1-5091-000CN	Cable, size sensor	Internal components (1 of 3) on page 359
RM1-5096-000CN	Sensor assembly	Multi-bin mailbox main body (2 of 2) on page 423
RM1-5126-000CN	Cable, interface	Optional 1,500-sheet feeder main body (1 of 2) on page 405
RM1-5127-000CN	Cable, size sensor	Optional 1,500-sheet feeder main body (2 of 2) on page 409
RM1-5128-000CN	Cable, door sensor	Optional 1,500-sheet feeder main body (1 of 2) on page 405
RM1-5129-000CN	Cable, feed, sensor	Optional 1,500-sheet feeder paper pickup assembly on page 413
RM1-5250-000CN	Top cover assembly (P4014)	Covers—base unit on page 357
RM1-5255-000CN	Front door assembly	Optional 1,500-sheet paper feeder covers on page 401
RM1-5255-000CN	Optional 1,500-sheet feeder front door assembly	Optional 1,500-sheet feeder front door assembly on page 403
RM1-5259-000CN	Remnant indication assembly	Optional 1,500-sheet feeder main body (2 of 2) on page 409
RM1-5261-000CN	Paper size detect assembly	Optional 1,500-sheet feeder main body (2 of 2) on page 409
RM1-5262-000CN	Paper pickup drive assembly	Optional 1,500-sheet feeder main body (1 of 2) on page 405
RM1-5264-000CN	Paper detect sensor assembly	Optional 1,500-sheet feeder paper pickup assembly on page 413
RM1-5265-000CN	Numbering assembly	Optional 1,500-sheet feeder main body (1 of 2) on page 405
RM1-5266-000CN	Bin solenoid assembly	Multi-bin mailbox main body (1 of 2) on page 419
RM1-5267-000CN	Drive assembly	Multi-bin mailbox main body (2 of 2) on page 423

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
RM1-5448-000CN	Face-up tray assembly (P4014)	Covers—base unit on page 357
RM1-5449-000CN	Right cover assembly (P4014)	Covers—base unit on page 357
RM1-5450-000CN	Left cover assembly (P4014)	Covers—base unit on page 357
RM1-5451-000CN	Right guide assembly (P4014)	Internal components (3 of 3) on page 367
RM1-5460-000CN	Registration assembly	Internal components (1 of 3) on page 359
RM1-5461-000CN	Grounding plate assembly	Internal components (1 of 3) on page 359
RM1-5465-000CN	Laser scanner assembly	Internal components (2 of 3) on page 363
RM1-6214-000CN	1,500-sheet feeder driver PCA	Optional 1,500-sheet feeder PCA on page 389
RM1-6214-000CN	1,500-sheet feeder driver PCA	Optional 1,500-sheet feeder main body (1 of 2) on page 405
RM1-6224-000CN	Multi-bin mailbox PCA	Multi-bin mailbox PCA on page 391
RM1-6224-000CN	Multi-bin mailbox PCA	Multi-bin mailbox main body (2 of 2) on page 423
RU5-0045-020CN	Gear, 18T	Internal components (2 of 3) on page 363
RU6-0159-000CN	Gear, 23T	Internal components (2 of 3) on page 363
RU6-2105-000CN	Spring, grounding	Paper delivery assembly on page 381
RU6-2115-000CN	Spring, tension	Internal components (2 of 3) on page 363
VS1-7500-006CN	Connector, drawer, 6P	Optional 1,500-sheet feeder main body (1 of 2) on page 405
VS1-7500-008CN	Connector, 8P	Multi-bin mailbox covers on page 417
VS1-7514-006CN	Connector, drawer, 6P	Power supply assembly on page 371
WG8-5624-000CN	IC, photo interrupter	Internal components (3 of 3) on page 367
XA9-1420-000CN	Screw, with washer, M3x8	Optional 1,500-sheet paper feeder covers on page 401
XA9-1464-000CN	Screw, flat head RS, M3x6	Power supply assembly on page 371

Table 8-27 Numerical parts list (continued)

Part number	Description	Table and page
XA9-1503-000CN	Screw, tap, M3x6	Internal components (1 of 3) on page 359
XA9-1671-000CN	Screw, D, M3x8	Internal components (1 of 3) on page 359
XB1-1300-605CN	Screw, machine, pan head, M3x6	Power supply assembly on page 371
XB2-7300-607CN	Screw, with washer, M3x6	Internal components (3 of 3) on page 367
XB2-7400-606CN	Screw, with washer, M4x6	Power supply assembly on page 371
XB4-7300-809CN	Screw, tap, binding head, M3x8	Internal components (2 of 3) on page 363
XB4-7401-007CN	Screw, tapping, pan head, M4x10	Internal components (1 of 3) on page 359
XB4-7401-007CN	Screw, tap, pan head, M4x10	Optional 1,500-sheet paper feeder covers on page 401
XD9-0232-000CN	Ring, E	Internal components (2 of 3) on page 363

A Service and support

Hewlett-Packard limited warranty statement

HP PRODUCT	DURATION OF LIMITED WARRANTY
HP LaserJet P4014, P4014n, P4015n, P4015tn, P4015x, P4515n, P4515tn, P4515x, P4515xm	One-year limited warranty

HP warrants to you, the end-user customer, that HP hardware and accessories will be free from defects in materials and workmanship after the date of purchase, for the period specified above. If HP receives notice of such defects during the warranty period, HP will, at its option, either repair or replace products which prove to be defective. Replacement products may be either new or equivalent in performance to new.

HP warrants to you that HP software will not fail to execute its programming instructions after the date of purchase, for the period specified above, due to defects in material and workmanship when properly installed and used. If HP receives notice of such defects during the warranty period, HP will replace software which does not execute its programming instructions due to such defects.

HP does not warrant that the operation of HP products will be uninterrupted or error free. If HP is unable, within a reasonable time, to repair or replace any product to a condition as warranted, you will be entitled to a refund of the purchase price upon prompt return of the product.

HP products may contain remanufactured parts equivalent to new in performance or may have been subject to incidental use.

Warranty does not apply to defects resulting from (a) improper or inadequate maintenance or calibration, (b) software, interfacing, parts or supplies not supplied by HP, (c) unauthorized modification or misuse, (d) operation outside of the published environmental specifications for the product, or (e) improper site preparation or maintenance.

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TO THE EXTENT ALLOWED BY LOCAL LAW, THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL HP OR ITS

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Print cartridge limited warranty statement

This HP product is warranted to be free from defects in materials and workmanship.

This warranty does not apply to products that (a) have been refilled, refurbished, remanufactured or tampered with in any way, (b) experience problems resulting from misuse, improper storage, or operation outside of the published environmental specifications for the printer product or (c) exhibit wear from ordinary use.

To obtain warranty service, please return the product to place of purchase (with a written description of the problem and print samples) or contact HP customer support. At HP's option, HP will either replace products that prove to be defective or refund your purchase price.

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Customer self-repair warranty service

HP products are designed with many Customer Self Repair (CSR) parts to minimize repair time and allow for greater flexibility in performing defective parts replacement. If during the diagnosis period, HP identifies that the repair can be accomplished by the use of a CSR part, HP will ship that part directly to you for replacement. There are two categories of CSR parts: 1) Parts for which customer self repair is mandatory. If you request HP to replace these parts, you will be charged for the travel and labor costs of this service. 2) Parts for which customer self repair is optional. These parts are also designed for Customer Self Repair. If, however, you require that HP replace them for you, this may be done at no additional charge under the type of warranty service designated for your product.

Based on availability and where geography permits, CSR parts will be shipped for next business day delivery. Same-day or four-hour delivery may be offered at an additional charge where geography permits. If assistance is required, you can call the HP Technical Support Center and a technician will help you over the phone. HP specifies in the materials shipped with a replacement CSR part whether a defective part must be returned to HP. In cases where it is required to return the defective part to HP, you must ship the defective part back to HP within a defined period of time, normally five (5) business days. The defective part must be returned with the associated documentation in the provided shipping material. Failure to return the defective part may result in HP billing you for the replacement. With a customer self repair, HP will pay all shipping and part return costs and determine the courier/carrier to be used.

Customer support

Get telephone support, free during your warranty period, for your country/region Have the product name, serial number, date of purchase, and problem description ready.	Country/region phone numbers are on the flyer that was in the box with your product or at www.hp.com/support/.
Get 24-hour Internet support	www.hp.com/support/hpljp4010series or www.hp.com/support/hpljp4510series
Get support for products used with a Macintosh computer	www.hp.com/go/macosx
Download software utilities, drivers, and electronic information	www.hp.com/go/ljp4010series_software or www.hp.com/go/ljp4510series_software
Order supplies and paper	www.hp.com/go/suresupply
Order genuine HP parts or accessories	www.hp.com/buy/parts
Order additional HP service or maintenance agreements	www.hp.com/go/carepack

HP maintenance agreements

HP has several types of maintenance agreements that meet a wide range of support needs. Maintenance agreements are not part of the standard warranty. Support services may vary by area. Check with your local HP dealer to determine the services available to you.

On-site service agreements

To provide you with the level of support best suited to your needs, HP has on-site service agreements with a selection of response times.

Next-day on-site service

This agreement provides support by the next working day following a service request. Extended coverage hours and extended travel beyond HP's designated service zones are available on most on-site agreements (for additional charges).

Weekly (volume) on-site service

This agreement provides scheduled weekly on-site visits for organizations with many HP products. This agreement is designated for sites using 25 or more workstation products, including devices, plotters, computers, and disk drives.

Repacking the device

If HP Customer Care determines that your device needs to be returned to HP for repair, follow the steps below to repack the device before shipping it.

△ **CAUTION:** Shipping damage as a result of inadequate packing is the customer's responsibility.

To repack the device

1. Remove and retain any DIMMs cards that you have purchased and installed in the device. Do not remove the DIMM that came with the device.

   △ **CAUTION:** Static electricity can damage DIMMs. When handling DIMMs, either wear an antistatic wrist strap, or frequently touch the surface of the DIMM antistatic package and then touch bare metal on the device. To remove the DIMMs, see Install memory on page 84.

2. Remove and retain the print cartridge.

   △ **CAUTION:** It is *extremely important* to remove the print cartridge before shipping the device. A print cartridge that remains in the device during shipping will leak and entirely cover the device engine and other parts with toner.

   To prevent damage to the print cartridge, avoid touching the roller on it, and store the print cartridge in its original packing material or so that it is not exposed to light.

3. Remove and retain the power cable, interface cable, and optional accessories.

4. If possible, include print samples and 50 to 100 sheets of paper or other print media that did not print correctly.

5. In the U.S., call HP Customer Care to request new packing material. In other areas, use the original packing material, if possible. Hewlett-Packard recommends insuring the equipment for shipment.

Extended warranty

HP Support provides coverage for the HP hardware product and all HP-supplied internal components. The hardware maintenance covers a 1- to 3-year period from date of the HP product purchase. The customer must purchase HP Support within the stated factory warranty. For more information, contact the HP Customer Care Service and Support group.